

is the most northerly of the rich mines on this parallel. Within this range there are several pieces of ground not yet proved, which at some future day may prove as rich as the best mines that have already been laid open.

I have not time this week to enter more fully into this interesting subject respecting these, which I call facts—viz., productive, non-productive, moderately rich, and very rich parallels. I wrote three articles on this subject in December, and this is the third one I have written during this month. My object in doing so is to point out to the out-adventurers the folly there is in so many reports, written by projectors of such and such a new mine, being on the same rich lode as some other mine, which may be 10 miles from the one that they are endeavouring to bring out, and sell if they can to the public. If "Ops," or any other correspondent, will take the trouble to point out any error which I may have fallen into, he will be doing service, perhaps to gentlemen who lay out their money on reports. I ask my fellow "Bal Captain" to affirm or to contradict the several statements made by—

A BAL CAPTAIN.

CORNISH ENGINES v. NON-CONDENSING ENGINES.

SIR.—I have no wish to uphold any system which may not be essentially the best and true, and if a "Cornishman" intends to apply to me the sense of the opening passage of his letter, he may now learn that it is without force. But I do think that this would be a "Cornishman" would have done himself more credit had he answered my requests, and placed some comparative data before the public, so that they might have judged of the economical efficiency of the high-pressure over the Cornish condensing-engine, instead of making statements which, if he is an engineer of any practical intelligence, he must know to be either incorrect or unfair to the question which he has raised. Whether or not the Cornish engine has attained to its highest economy need not be enquired; the best engines have performed, by Lean's method of reporting, 100,000,000, and it was cited in the late report of Wheal Vor that the 100-inch cylinder-engine was giving a duty equal to 105,000,000. There is, however, a point of excellence which the human mind cannot surpass—it cannot alter the laws, or modify the conditions of Nature.

Had a "Cornishman" been well conversant with the gradual decline of engine reporting in Cornwall, he ought to have avoided any defective observation. Lean's *Engine Reporter* scarcely notes one-third the number of engines that it did 15 years ago, and those which are reported are chiefly worn engines. But what says Brown's reports?—Why, that the average duty of his engines is equal to about 60,000,000 per 94 lbs. of coal. Of course, "Cornishman" will say that the two systems of reporting are different: I know it is, and so most likely is the method employed by the Royal Agricultural Society for determining the duty of engines examined by them.

When "Cornishman" urges the excellency of high-pressure engines, he ought not to object to give the data by which he determines it. This might be placed in a parallel position with Wheal Vor engine and its performance, so as to show, at a glance, the relative difference and merits of each of them. As to the first cost of high-pressure engines, as compared with the Cornish engine, that question has no bearing in discussing the economical working performance of either, although it is, undoubtedly, a subject which, apart from this, deserves much more consideration than it has received. And now for the thrust direct which "A Cornishman" attempts to give. What is my text? See *Mining Journal*, p. 3. "Cornishman's" letter:—"But I will lay before your readers a couple of facts. I have, under my superintendence, two engines doing equal work—one a condensing-engine, the other a high-pressure, short-stroke engine. The condensing-engine very fairly represents its class, and the high-pressure-engine, though not perfect (!) combines many good qualities—the first consumes 35 cwt. of coal per day, and the other only 15 cwt." If both engines are doing equal work, and the condensing-engine a fair representative of its class, consuming 35 cwt. of coal against 15, if I may believe myself, the difference in coal consumed is as 100 to 233; and, therefore, if Wheal Vor engine is doing 100,000,000, it should perform, on "Cornishman's" high-pressure reasoning, 233,000,000.

Where is my want of truth? "Cornishman," if he is any engineer, knows better than he writes; if he does not, and is too wise to learn, then he had better not occupy space in your Journal, for no one valuing their time and truth will find any benefit or interest in noticing him.—London, Jan. 31.

G. D.

CORNISH ENGINEERING.

SIR.—I believe I am correct in stating that an engine constructed on the principle of the Cornish pumping-engine is generally considered to be capable of doing a given quantity of work, with a smaller amount of fuel, than engines constructed on any other principle; for where such an amount of money is annually expended in fuel, for the working of engines, as there is in Cornwall, it becomes a matter of considerable importance to have these engines constructed so as to work as economically as possible. But your correspondent, "A Cornishman," would make us believe that he knows of a "short-stroke, high-pressure, non-condensing engine," now working, and doing a higher duty than the Cornish pumping-engine. I hope such may be the case; and if so, "A Cornishman" should not be afraid nor ashamed to let us know where it may be seen; and, for the benefit of the public, he should no longer keep it a mystery. I, for one, should not think my time thrown away in travelling even 400 miles to see it, if, by doing so, I could learn anything, so as to effect a saving in the working of the Cornish engine. I would, however, remind "A Cornishman" that he should not take 50,000,000 as the duty of a Cornish engine, for there are engines now working in Cornwall, and doing a duty of 110,000,000. I doubt very much whether "A Cornishman" can show me a short-stroke non-condensing engine doing a duty but what is far inferior to 110,000,000.—Jan. 30.

A CORNISH MINER.

MINERAL INDUSTRY OF SPAIN.

COPPER MINES IN SPAIN—LA VIRGEN DE GRACIA.

SIR.—Up to the present period Spain has been recklessly extravagant in dealing with her mineral riches, but the time is fast approaching when competition, and the wonderful discoveries of foreigners, will make her look more carefully into the economy and improvement of her resources. In the course of a few years, however, metalliferous industry has considerably increased, in spite of the obstacles presented by Nature and men. The successful results obtained by the Mining Society, formed for the purpose of working the rich silver mines of Huelva, have greatly contributed to raise the spirits of miners. If a strict impartiality should, however, be observed, I must confess that this success is principally owing to the intelligent and well-maintained assistance of an English company (La Roca), which established the smelting establishment called La Constante. With this powerful protector, the shareholders of that mineral district have been abundantly indemnified for their expenses, and their efforts crowned with the most brilliant success.

Unfortunately, this is not the case with other mining companies, the greatest part of them having been utterly unable to continue their works—not from any poverty in the mineral deposits of the country, or want of enterprise and liberality in the shareholders, but from mismanagement, and want of intelligent engineers, who could smelt the ores. It is much to be deplored that other British companies, induced by the large benefits which have been obtained lately by La Constante, have not determined to employ their capital and industry in the extraction of the immense mineral wealth with which Nature has so lavishly favoured us. Mining companies have placed their hopes in the societies and bankers who are actually endeavouring to establish themselves in Spain, but I think that for the present we more particularly want scientific men of practical skill in working, raising, smelting, and dressing the ores. In the neighbourhood of Cordova, there is a most wealthy district in silver and copper ores; and it was attempted to raise, on a large plan, an association, not only for the purpose of working the ores of the mine called Nuestra Senora de Gracia, but of all the other mines of the same district. Unfortunately, the experiments tried in the reverberatory furnaces have been attended with failure. This has led to disappointment and distrust, and although the veins can be traced for miles and leagues, yet without good engineers these treasures are bound to remain undiscovered. I consider, therefore, that this is a *bona fide* enterprise, and one of considerable promise to any capitalist, or company of foreigners, who would undertake the extraction of the silver and copper ores of the district of Huelva, near Cordova. This might be a most valuable business, combining the working of the mines with the employment and use of the mineral coal that covers a large extent of the territory.

M. ARGAL.

CORRESPONDENCE OF THE MINING JOURNAL.—No. VII.

"Non nostrum tantus compondere lites."

SIR.—It has been asserted by some one or other that language is the shackles of thought. I know it is to very frequently as much a bore as a blessing, and the Tower of Babel has more to answer for than any other elevation that ever was in this world, or ever will be in the world, except the MINING EXCHANGE; and that, in Jonathan's phraseology, "whips it." Now, in your leading article, last week, you very sententiously put forth the edict that "There is no excuse for a civilised people erring through ignorance." Granted. And now I say that there is no excuse for one or two of your most intelligent correspondents inscribing their thoughts in language by no means in accordance with our simplest rules. I wish well to believe that the errors in "Coal Miner's" letter are intentional—if they be not so, it is an insult to his own intelligence; for if there ever existed a black angel who spoke the sublimest truths in bad English, it is that self-same "Coal Miner." A little care would place him among the first of your literary correspondents; and, in a friendly spirit, I express the hope of seeing him occupying the position. At the same time, I rather suspect he has assumed the error with the name. If it be otherwise, then educate your mining population without loss of time, for they are MIGHTY IN THEIR INTELLIGENCE.

"Coal Miner" has thoroughly carbonised the select committee: even his admiration of "the patriotism and unswerving integrity of some of its members" is but a gleam of Jove on their incapacity. I agree with him: 1000 valuable lives immolated annually on the "golden altar of incompetency" are a fearful item. O man, how long will you trifle with the miseries of your fellow? The fact is, the appointment of inspectors under the new Act has been made in ignorance of the real state of 200,000 colliers. And whose fault is this? Why, of the collier community themselves; and it will be a still greater fault if they tamely submit to have their meal in life dispensed by weak hands and worse intellects. The meeting at the Craven Hotel was like the meeting of the thieves in Gil Bias, in which every man had to attend his own particular interest first, and be satisfied with its value, ere he could bring his mind to the task of considering what was best to be done for the body at large. "Coal Miner," if I have criticised your epistle, it has been done in a fraternal spirit.

COAL MINES, COAL MINERS, INSPECTORS, &c.—"Vindex" very properly deprecates—condemns—the presidency of Mr. N. Wood, a coal owner, in the examination of candidates for coal mine inspection, &c. I say to "Vindex," and to his conferees, "Agitate, agitate," let the question of qualification for inspectorship, and qualification for discriminating fairly and scientifically as to the capability of candidates, be once brought to the fore by special application to the courts.

SMELTERS, AS DIRECTORS OF MINING COMPANIES.—The very commercial position of a smelter should preclude his being appointed as director of a mining company. "Free trade, and no favour," should be the motto.

WEST ROSEWATER.—The owner of a mine grants the grantees, in *limine*, by executing a large guarantee for working; and if the lords of the soil countenance exorbitant legal (?) charges for the preparation of deeds, mine adventurers should at once combine to have the fees defined by special application to the courts.

GREAT WHEAL BUSY (LIMITED).—"Clerk," however firm in his faith to the false representations made about this mine, should bring forward more proof than mere assertion. It would be wise to exercise caution on all sides.

MINING IN DEVON.—In Devon, as in many other parts of England, vast tracts of mineralised ground exist undeveloped. This is owing, in a great measure, to the inertness of local owners. Let them bestir themselves, and success will be achieved.

THE MINERAL WEALTH OF THE CRIMEA.—Col. Asbeckourt's suggestion to defend the Crimea, by causing a "rush" to "digging" in that region, is Utopian.

GOLD-BEARING QUARTZ, &c.—Mr. Evan Hopkins's dissertation on the treatment of gold-bearing quartz is ingenious. He canvases Capt. M. France's remarks on the use of rollers; but the rollers will roll effectively. Still, nevertheless, Mr. Clement must certainly succumb to Mr. Hopkins's objections to his system. The cost named by him—viz., 100,000—*to establish a gold mine, looks preposterous, even if it be not so.* Mr. Hopkins, as far as this discussion goes, for once wins the day. Where he is practical, few can compete with him.

THE GOLD QUESTION.—Mr. W. Radley certainly advances some very pertinent and scientific reasoning against Mr. Low's "trials," but, after Mr. Low's failure, it will be time enough to combat Mr. Radley's theories.

CORNISH ENGINEERING.—Our friend, "A Cornishman," will require a very stiff and potent dose of science yet before he will give in. His present letter is much better than his first, and induces one to think there is really something in him. He still claims for the "short-stroke high-pressure engine an economy of fuel at least equal to the Cornish engine, and in first cost a saving of fully 50 per cent." Who now will take up the gauntlet? "A Cornishman" is no mean disputant, after all. Jan. 30.

OP.

DR. COLLYER AT FORT BOWEN MINE, NEW GRANADA.

(THE INTERCEPTED LETTER.)

SIR.—Having made all the necessary preparations for the voyage of exploration up the Palmillo River, at Escrebanos—such as having at our disposition the largest and best canoe in this part of the country, laying in a plentiful supply of provisions, and the necessary mining implements—we started from Escrebanos, which, as your readers have been already informed, is a small collection of huts, on the open coast, about one mile from the mouth of the River Belen. Our party consisted of Mr. Alexander, Mr. Meig, Mr. Costigan, myself, and four stout natives to paddle the canoe. Our voyage along the coast was not marked by any feature of particular interest, except that, on looking over the sides of our frail craft, shoals of every description of fish were to be seen. After about two hours, we arrived off the mouth of the Palmillo River, a distance of five miles—where exists a bar—these are extremely dangerous of navigation, as, without great dexterity in the guidance of the helmsman, the chances are that the rollers upset the canoe. To give an idea of the perils attendant on this mode of conveyance, the Fort Bowen Company have had no less than four persons in their employ drowned within the last year.

This company possessed, until lately, a capital sloop of about 8 tons, which was safe and every way seaworthy; but some three weeks before my arrival at the mine, Mr. Tate refused to allow the captain the price of a new rudder, in place of the one he had lost in going over the bar of the Belen River. Every one knows that captains are not responsible for the dangers of the sea, and all losses are sustained by the owners; still, the captain being forced to pay the damage, resigned his command. The person next placed in command was entirely ignorant of navigation—so much so, as to take the sloop to sea without ballast. The consequence was that, after having been out a few hours, a squall of wind capsized her, and she was lost, on which occasion one of the crew was drowned, the rest saving themselves on pieces of wood, and, after being in the sea five and six hours, managed to get ashore some 20 miles up the coast. Such is one example of the judgment exercised in the management of the affairs of this mine—the Fort Bowen. The consequence has been that all persons, for the future, have their lives jeopardised by the voyage in a canoe, 75 miles in the open ocean, from Colon to Escrebanos.

But to return to my narrative. Mr. Alexander having the command of the canoe, we got over the bar, one or two waves only rolling over the sides of our vessel. The scene which now presented itself was truly beautiful and romantic. The Palmillo River was completely shaded by high trees overhanging its banks on either side, protecting us from the scorching effects of the sun's rays. We ascended the river some two miles, when a sea-cow, or manati, was seen grazing on the bank—that is, one-third of the body of the animal was out of the water. Had we had sufficient means of destruction with us, our guide would certainly have shot the creature, which, I am informed, is most capital food; but, as it was, we allowed him to pursue his meal undisturbed. Would that we had caught him; for the food at the mine being most indigestible, sometimes eight or ten days without a biscuit, flour, or anything save that which would be more fit for an animal having the stomach of an ostrich, or the jaws of a shark, than for a human being to masticate and digest. This is called, by some, economy! After four hours' exertion over numerous rapids up this circuitous and meandering stream, we arrived at the place of debarkation, our Indians, each having large knives, or machetes, something like a cutlass, to cut the way for us through the underwood—in fine, the dense forests of New Granada are perfectly impassable if the road or path is not cut on each journey; for the rapid growth of every species of plant soon obliterates every trace of what has been done a few months previous.

Having arrived at the Palmillo Mine, I found that extensive workings had been done at some former period by the surface-washers for gold, who, it seems, had traced their "lead" up to the spot, where a cutting has been made some 20 feet long, and 10 in depth. The lode is only about 1 foot in width, mostly of felspathic felsite, and some 5 inches of quartz which indicated gold—in fact, small specks were to be seen. In the alluvial deposit, we found gold on every trial. In this particular I was not surprised, for, from the Atlantic to the Pacific, nowhere could a bucketful of the alluvial be washed without finding gold. There are many difficulties against the Palmillo Mine: it is next to impossible to transport machinery to work it; the river is not navigable more than three miles, only for canoes; and the vein is so small, that I altogether abandoned the idea of entertaining the proposition of my friend, Mr. Alexander, to take possession of the mine. I told him it would be impossible for me to recommend it to my friends in England with that confidence of success which would warrant the investment of substantial capital to work it; upon which he said, "I have other mines, which we must visit to-morrow." This agreed on, we now retraced our steps for the canoe. In this I met with several unpleasant accidents, such as falling over stumps, sliding down a precipice; but, with the exception of a few bruises, safely regained the canoe, which had been hauled high and dry. Here we made a hearty meal, and were soon again dragging our craft over the numerous rapids down the river. This, though not so tedious as the ascent, is still extremely wearisome.

Having arrived at the mouth of the Palmillo River, we landed. Here is a good piece of cleared land, which Mr. Alexander uses for pasture purposes. He has a dozen more fine oxen, and I made arrangements to have one brought to the mine at Fort Bowen. While on shore here, a spectacle presented itself—a regiment, some 200 yards in length, of very large red ants, each one carrying a leaf in its mouth, some times larger than itself. One of our Indian boatmen informed me that only one of the ants came along without a leaf. There were sentinels placed every few yards, who would not allow the lazy ant to pass. To test the truth of this, I took away the leaf from one of the ants, and sure enough, when he came to a particular spot, he was forced back by the sentinel. Many people call this instinct, by which they pretend to discard the idea that the lower class of animals do not exercise the faculty of reason. The animal kingdom abounds in numberless instances of the use of the reasoning faculties—perhaps in a low degree, but still having a direct relationship to cause and effect.

Having left the Palmillo River, no difficulty existed in re-crossing the bar; for the current being with us, it was an affair of no moment. With a fair wind and a flowing sail, we were soon again at the hospitable domicile of Mr. Alexander, who quickly had a most sumptuous repast prepared. Our hammocks were soon in requisition, and each one of the party, with the exception of the Indians, were enjoying a recumbent smoke, and a social chat over the day's exploits.

Next day we determined to visit the Belen Mine, known as the Rompedo, or Reventada, by the alluvial washers. It was from this locality that Columbus and his brothers obtained so much gold, on their second voyage to America. We arrived at the mouth of the Belen River early in the morning. From this point there is presented a magnificent view of Castle Chico Mountain, some 18 miles distant. It is the loftiest peak in this vicinity, being 7600 feet above the sea, and forms one of the central chain of mountains which constitutes the Isthmus. The stratification runs nearly north 45° east, and is nearly vertical at the summit range, where it is horizontal. The geological stratifications of the Isthmus are—alluvial clay, porphyritic clay, felspathic clay, indurated clay, quartzite, felspar, gneiss, greenstone, schist, greenstone, hornblende schist, hornblende, syenitic greenstone, syenite, basaltic lava, white quartz, and granite.

The Belen River is really a noble stream, and for the first four miles is navigable for any sized craft. The point of difficulty is the bar at its mouth: here it is an impossibility to cross, in anything like rough weather, in a canoe; and no company will be efficient without an iron steamer of from 70 to 100 tons burden, with a small draught of water. Such a one would render all other obstacles a mere moonshine, and the Fort Bowen, and other mines in its vicinity, could be worked to any extent with great facility. Even as at present, the locality is much more accessible than is the case in 99 gold mines out of 100. The failure to extract large amounts of gold has not depended on any natural obstacle in this locality, but from ignorance of the mode of extraction of the precious metal, and the most gross mismanagement, which even at this moment is not much improved. After the date of Mr. Ram's departure, the visible gold was struck—so much so, that the persons then at the mine obtained more than 50 lbs. weight of pure gold, which was run into the form of bullets. This was six weeks before Mr. Tate's arrival, and more than two months before Mr. Tregoning came to the mine—so that there was not much difficulty in saving some gold with the blankets, which were actually yellow after a few hours work. I am thoroughly persuaded that at least two-thirds of the gold is now being lost, and, in all probability, not one-quarter will ever arrive at the company's office in London. The mercury I used with my amalgamator was entirely free from any trace of gold. This I took special care to ascertain; still, after 12 hours' work, on not more than one-half of the tailings which were being thrown away, more than 2½ ozs. of gold was saved—in fact, more than double the quantity that was being saved by that stupid mode of merely using the blankets. If the stuff were to be concentrated and amalgamated in the manner I have proposed, also allowing the refuse to pass through mercury, I would engage that not over 10 per cent. would be lost. If, also, proper calcination, and the use of chloride of sodium, then the facility of reduction would be greatly increased, and much more gold saved in less time. On this topic much could be said; but so long as old methods are resorted to, merely because they are old methods—and men will not be guided by the improvements in science—it will be of no use to attempt to remove the obstinate prejudices, jealousies, and wounded self-love. This is much to be deplored; for, no matter what machinery is employed, if not under the guidance of brains—educated, intelligent brains—very little profit will accrue to the adventurers. When men are so self-sufficient as to know everything, it is of no use to attempt to educate them. Instead of the Fort Bowen Company only receiving 65 ozs. of gold the other day, they ought to have received 200 ozs.; and had I had the management of the extraction, that would have been the result. Of this fact I do not entertain the shadow of a doubt.

I also most unhesitatingly pronounce this region of country to be, geologically, the richest in the world. Imagine the violent contortions, distortions, eruptions, and disruptions of the narrow strip of land which constitutes the Isthmus, cramped up, as it were, between two vast continents, at a remote period of this planet's existence—twisting, writhing in convulsive movement, like the dying agonies of a huge snake. It seems as if the backbone of the mighty mountain chain of Andes, commencing at the extreme end of South America, at Patagonia, and ending in the rocky mountains and Sierra Nevada of Oregon, in North America, had been broken twice on the Isthmus. One of these violent convulsions of Nature took place in this region, the other at Nicaragua. Let any one cast his eye on the map, and it will be irresistably forced to the conclusion that no part of the earth presents so remarkable a position, geographically—it is equally true geologically. All the essential conditions are present—a purely volcanic structure—the rocks are all metamorphic on the surface. It only requires science and practical skill, to prove the inexhaustible quantities of gold which here abound. It must be remembered that this country, of which I am particularly treating, has remained unexplored until this day.

The cutting of the Panama Railway shows the formation of the country completely. A trip on this line is worth a journey across the Atlantic. I am deeply indebted to Col. Totten, the superintendent, by whose indefatigable energy and talent the line has been completed. I cannot forget Mr. Center, the vice-president, who also resides at Aspinwall or Colon. Both these gentlemen are engineers of eminence. The reputation of having bound the vast oceans of Atlantic and Pacific is greater than could

be attained by a Napoleon or an Alexander. The former have contributed to the advance of science and civilisation, by facilitating the means of intercourse for the great human family: the latter were more conquerors, by means of animal feeling. The intellectual man is opposed to violent measures, such as involve the happiness of humanity, and destroy the means of advancing the arts and sciences.

25, Winchester-row, New-road, Jan. 21.

ROBERT H. COLLYER, M.D.

[To be continued in next week's *Mining Journal*.]

AUSTRALIAN CORDILLERA GOLD MINING COMPANY.

SIR.—Your correspondent, "C. A. G." is informed that he, and the other shareholders, are without favourable results, owing to their moral cowardice in not coming forward to assist me, by sharing expenses, when I have unquestionably proved dishonest practices in all the gold mining companies which I have exposed. If I call you together it is at my own cost, and no one is forced to come unless he pleases. Instead of mournful homilies, I appeal to those present if I do not always satirize in a most playful vein. Your reporter, Mr. Editor, can testify that I have never made protestations which I have not carried out. Through my Quixotic propensities to fight other people's battles without reward, in this and other matters, I have spent an extraordinary amount of money and time,

Meetings of Mining Companies.

GREAT POLGOOTH MINING COMPANY.

The quarterly meeting of shareholders was held at the offices of Mr. Foulkes, Old Broad-street, on Monday.—Mr. P. D. HADOW in the chair.

Mr. FOULKES (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed.

The report of the committee was then read, as follows:—

During the past three months the works at the mine have not progressed so speedily as could have been desired, owing to the continued hardness of the ground, and varied course of the veins; nevertheless, we have recently had the satisfaction of receiving, from the agents, several encouraging accounts of important improvements and discoveries, the details relating to which, as well as of the general prospects of the mine, are contained in the captain's report, and which will be read to the meeting. The sales of tin, it will be observed, have somewhat fallen off in quantity, for the reason above stated, and they can hardly be expected to increase materially for two or three months to come; however, your committee, relying upon the agents' reports, still hope for a successful result, as soon as the bottom levels are fairly opened out. The accounts, duly audited, are subjoined.

Mr. FOULKES next read the report of Capt. Pusey, Hancock, and Dunstan, from which the following is abstracted:—

"The engine-shaft is now down 10½ fms. below the 116; and although the ground has not been quite so easy for sinking as we expected, yet the time occupied is within our estimate, and we have now to report a very important improvement in the lode, which is from 2 to 3 ft. wide, and the leader, or rich tin part, about 2 ft. wide: depth. Some of the tin work is the richest we have ever seen in the mine; and the whole together is a very important discovery. The 116 has been driven about 2½ fms. east of the shaft. In the 20, in the western part of the mine, about 50 fms. from the great engine-shaft, a pair of tributaries cut a branch, which proves to be a part of the Boskellau lode west. It is somewhat satisfactory to recollect that we are rather in advance of our original estimate, and while we believe this to be the best report it has ever been in our power to give, we beg to assure you that our best exertions shall be continually used to bring this mine to the most profitable results."

The following is the statement of accounts for Sept., Oct., and Nov.:—

Tin sold, Sept.	21 c. 9 q. 3 l. 8	
,, Oct.	21 4 2 24	
,, Nov.	21 6 0 20=61 c. 0 q. 2 l. 24 £4476 16 7	
Arsenic	3 18 2 0 9 10 0	
Copper	14 17 0 0 70 2 4	
Old Stores	2 3 8	
Copper sold for Nov.	10 0 0 = £1568 12 7	
Mine cost, for Sept., Oct., and Nov.	£4890 11 1	
Charges, accounts	72 9 4 = £4553 0 5	
Profit	£ 15 12 2	
BALANCE TO JANUARY 28.		
Capital	£493 1 0	
Interest account	9 16 10 = £4502 17 10	
Pursers' balance	1093 2 0	
Profit and loss	2 15 9	
Suspense account (1206 shares)	904 10 0 = 2000 7 9	
Balance in favour of mine	£2502 10 1	

The CHAIRMAN said, in rising to move the adoption of the reports and accounts, he had very little to add. The progress at the mine had been retarded, through the badness of the ground, but their prospects were very favourable. The elvan had always been their bugbear, but they had now got under it, and although the profit on the three months' working was only 15, 12s. 2d., in every instance they had progressed more than they anticipated when they called upon the shareholders to make an advance to develop the property. There was another point of some interest to the adventurers—one of the captains (Mr. Hancock) had invented a machine for dressing ore, by which a considerable saving would be effected; and the committee had advanced 107, 10s. to protect him, and for which Mr. Hancock had agreed they should have the benefit, without any charge for patent right. The only other business was a formal resolution indemnifying the late trustees. He (the Chairman) would, therefore, move that the reports and accounts be received and adopted.

Mr. HESSELTINE seconded the resolution, which was carried unanimously.

Mr. JOHNSTON said, as the report was dated on the 16th, perhaps Mr. Brown, the person who was in attendance, could give some further information up to a later date.

The CHAIRMAN said the improvements in the 106 were confirmed.

Mr. BROWN observed that up to Saturday last the lode at the shaft was looking better than stated in the report; indeed, since he had been connected with the mine it never looked more favourable. With regard to Capt. Hancock's invention, it was not the first that had benefited the mine, and he expected it would be in operation in about three weeks, when they would save considerable expense in dressing the tin.

Mr. HESSELTINE said he could bear testimony to all that had been stated by Mr. Brown. He had seen the machinery, and considered it would be of great advantage to the company.

A resolution was then proposed and carried unanimously, indemnifying Messrs. John Brown and Francis Carnes Brown, the late trustees, they having assigned the property to Messrs. Hadow, Heseltine, and Cox.

The CHAIRMAN said, Mr. Allender, one of the auditors, being appointed a member of the committee, it was necessary to elect another, and he would propose for the office Mr. J. De Vitre.

The resolution was seconded and carried unanimously.

Mr. HESSELTINE next proposed that the present committee be re-elected, and observed that little need be said on the subject, after the very able manner they had performed their duties; he would, therefore, move that the best thanks of the shareholders be given to the committee of management. (Cheers.)

Mr. De Vitre seconded the resolution, which was carried unanimously.

The CHAIRMAN, in returning thanks on behalf of his colleagues and himself, said they would continue their exertions to secure the confidence of the fellow-shareholders.

Votes of thanks to the auditors, secretary, captains, and officers of the mine, terminated the proceedings.

WELSH POTOSI MINING COMPANY.

The half-yearly general meeting was held at the offices of the company, 26, Grey-street, on Wednesday.—Mr. JAMES LOFTHOUSE in the chair.

The CHAIRMAN read the notice convening the meeting, and the report of the directors, showing the progress that had been made in the development of the mine since the last meeting. They had secured the services of Capt. Matthew Francis to report on the mine, and it appeared that ore, to the value of 50,000*l.*, was in sight; the dressing-rooms had been completed, and the reservoir repaired; and if a steam-engine were erected, they had no doubt but their future progress would be smooth enough. They had had much to contend with, of which they had no anticipation (much misconception having been caused by their former captain), but he believed their greatest difficulties were passed, and, although it would be necessary to raise further capital, their prospects were such that he was convinced no measure could be proposed of so great importance to the company. The amount for which they required authority to raise was 10,000*l.*, and he would remind them that their property was one of no ordinary extent, as it covered a surface of 2000 acres, and was as valuable as any property in Wales. He would then read the balance-sheet, but before doing so would enquire of Mr. Cross (one of the auditors), who was present, whether he had seen the vouchers for every item contained therein? as, by adopting that course, he should prevent any dispute arising at a future period, and as those accounts were going to the world, through the public press, it was highly necessary that every precaution should be taken to ensure their correctness.

Mr. R. F. CROSS: I have seen the vouchers for everything mentioned in that balance-sheet, or should not have signed it as audited by me.

The accounts which were then read, showed the following result:—

Dr.—Balance last account	£3855 0 8
Produce, being 392 tons 18 cwt. of lead	6176 12 6
Rent of barracks	231 14 4
Share capital account	6078 0 0
Pursers' account	933 17 1
Loan from North and South Wales Bank	1000 0 0
Sundries	772 3 6 = £ 18,787 8 1
Cn.—Balance of purchase	£1700 0 0
Dividends paid	3544 15 1
Loans repaid	2060 0 0
Mine cost, Jan. to Nov.	10734 3 11
Discount, interest, and commission	62 18 3
Traveling expenses	129 19 9
Salaries and petty disbursements	153 18 7
Machinery	400 0 0
Farm	37 0 0 = 18,762 10 7
Leaving balance at bankers	£ 21 17 6

The CHAIRMAN said he must add that a note was appended to these accounts, by Mr. Wilkinson, which stated of the 10,734*l.* 3s. 11*d.* for labour cost, the sum of 645*l.* 0*s.* 10*d.* had been expended on capital account, being for new leases, reservoirs, dressing-rooms, a new water-wheel, and for laying open the mine in parts which have not yet been worked. Another remark he had to make, was that the December cost was not included in the balance-sheet, but against that they had the December produce, which was also omitted. This was a difficulty which they would endeavour to avoid, by altering the dates of their half-yearly meetings to February and August, as it was most impossible to make up their accounts to the end of the year, while their meetings were held in January. He would next read Capt. Dunn's report, from which we make the following extract:—

EGAIR-HIR.—During the past year, the progress made in developing the mines, and opening up ground for stoping, had been very marked, as well as in buildings, and the erection of machinery. The 10 fm. level, was of old engine-shaft, was driven 64 fms. on the course of the lode, 40 fms. of which was through good ore ground, so that there are 11 or 12 fms. more to drive to communicate with the 10 fm. level east. He expected to accomplish this, provided he had a supply of water to work the pumping-wheel, in about eight weeks. When this is done they would have 100 fms. of ore ground laid open for stoping.

EGAIR-Y-CRIB.—The engine-shaft would shortly be communicated with the adit level. The ground laid open at present was very productive, and he saw no reason where the above communication was made why they could not return from 14 to 15 tons monthly.

MIDDLETON MINES.—At Aith-y-Crib, the deep adit was driven 80 fms. on the course of the lode. A cross-cut had also been driven 12 fms. to procure a south lode, but they had not intersected it. The dressing-rooms were completed, with the exception of one or two minor erections for returning slimes. The machinery was adequate to return a larger quantity of ore monthly, and only required a constant supply of water. They daily experienced the want of a reliable motive-power, without which they would always be in difficulties, and unable to develop the mine to the extent appearances justified.

The CHAIRMAN said they had heard the reports which had been read. Previous to their being confirmed, he should be glad to hear if any gentleman had any observations to make.

Mr. OLIVIER observed that he thought it would be more satisfactory to the shareholders if, instead of the reports being read at the meetings, where it was difficult to follow them, they should be previously printed, and circulated among the shareholders.

year 400 tons of ore, at a cost of 4500*l.* The machinery was in good working order, and if the weather were favourable they would sample 50 tons next week.

In reply to a question from Col. Pearson, the CHAIRMAN stated that two dividends of 5 per cent. had been declared on the 54,000*l.* paid up, of which sum 3544*l.* 15*d.* had been already paid.

Some calculations were then gone into, from which it appeared that the entire expenditure which would be incurred in raising 100 tons per month, with the assistance of a steam-engine, was 700*l.*, or 8400*l.* per annum; whilst the ore, calculated at 15*d.* per ton (although all they had yet sold had averaged over 18*d.*), would realise 18,000*l.*, leaving 9600*l.* for division in dividends.

The CHAIRMAN considered that if the steam-engine were erected there would be little or no difficulty in realising the results of those calculations. The place at which the steam-engine would have to be erected was at the top of a bleak mountain, and for this reason there had been much hesitation in erecting it, as fears were entertained as to getting the coal; but now it was intended to have the boiler of a description that would consume coal and peat mixed; and, further, as they had now their own horses and carts going continually to Aberystwith with ore, they would be employed to bring back coal each time, instead of coming back empty. As, however, it was up-hill work from Aberystwith, it was intended to bring but half a load of coal each journey, which would be ample sufficient for all purposes, and would not fatigue their horses. Capt. Francis had, as he before stated, inspected the mine, and his report was laid upon the table. From this report we extract the following:—

The lodes of these mines are very well filled with ore, and remunerative to an extent sufficient to cover all necessary expenses, and leave large profits; without these remarks the proprietary might be discouraged by the natural difficulties presented by the climate and present position of the mines. His estimate of the raisings was, at present, rather more than 75 tons per month, and as soon as the Bog shaft is holed, which may be expected every day, they will be increased to upwards of 90 tons. He recommended a Cornish engine of the best description, as improved by Grove, with 40-in. cylinder, 9 ft. stroke, and rotative action, which, although it would cost three times more than a smaller high-pressure engine, would do the work at one-third the cost for coal. He advocated this principle of economy, because he looked forward to a most extensive and lucrative mine in depth, and a permanent mine with reference to time and to erect a cheaper engine would be to secure a lasting loss to the company. He should say the ore ground drawn above the 30*f.*, as represented by the courses already laid open, would amount to 50,000*l.* worth; but it is not improbable that there may be three times that amount above the level, not yet cross-cut. Being written to, by Mr. Wilkinson, for fuller particulars with regard to his estimate of 50,000*l.*, he writes, under date Jan. 11:—“I estimate the discovered ore ground at Welsh Potosi thus—Egair-hir, 76 fms. long by 45 fms. deep, at 1 ton per fm. (say) 15*d.* per ton, 51,300*l.* There are 18 fms. of ore ground at Egair-fraith, which, as it is in the back of an adit, and has not been sunk upon, I have not included in the calculation; this, above the adit, probably will be worth 2000*l.* There are also the chances of the lodes of Egair-hir, almost amounting to a certainty, of immense masses of ore, all of which will be available to the depth of your engine-shaft, 30 fms. under the adit. I am not afraid that I have over-estimated the value of the ore above your sinking shaft of these mines.”

The CHAIRMAN then proposed that the reports and accounts be received and confirmed, and entered upon the minutes, which resolution was unanimously carried. It was also unanimously resolved that, to enable the directors to erect a steam-engine, with all necessary and suitable machinery, they be empowered to raise a sum not exceeding 10,000*l.*; and that the directors be authorised, if they consider it requisite, to take the necessary steps for altering the constitution of the company, so as to bring it within the provisions of the “Limited Liability Act”; and that in future the half-yearly meetings of the company be held in the months of February and August; and that Col. Saml. Archimby Dickson, Thos. Gibbes, James Lofthouse, Dr. Spurgin, John Williams, and Thos. Wm. Wilkinson, be the directors for the ensuing half-year; and that the best thanks of the meeting be given to the directors and managing directors, for their past services; and to James Lofthouse, for his conduct in the chair.—The meeting then separated.

LYDFORD CONSOLS MINING COMPANY.

A general meeting of shareholders in this mine was held at the office, 117, Bishops-gate, on Monday.—Mr. THOMAS WINKWORTH in the chair.

The following very satisfactory report, from the agent, was read:—

Jan. 25.—In handing you my report for the general meeting, to be held on Monday next, I beg to inform you that Richard's engine-shaft is progressing very satisfactorily, and will be 10 fms. below the 13 fm. level by the end of this month. The ground therein is a congenial blue killas, highly mineralised, and agrees in similarity of character to that found in most productive lead mines. In the 13 fm. level, south of Richard's engine-shaft, now extended about 27 fms., the lode presents an exceedingly promising character, being also large, full 4 ft. wide, and is composed of flookan, blan, mundie, and spots of lead ore. During the temporary suspension of Richard's engine-shaft, owing to the severe frost, &c., a portion of the men have been engaged in the 13 fm. level north, which is now driven about 15½ fms. in that direction; and the lode in the present end is full 4 ft. wide, composed of flookan, quartz, and spots of lead ore, and promising further improvement. The 13 fm. level drivings, both north and south of the engine-shaft, exceed 40 fms.; throughout this length the lode has assumed such an appearance as leads me to expect a good productive lode when intersected in the 25 fm. level, and in this opinion I am borne out by all the parties who have ever inspected the mine. Ward's winze is sunk 9½ fms. below the adit level, the lode in which is large, and composed of flookan, quartz, spots of lead, &c., and is altogether here, as also in the 13 fm. levels below, one of the finest and most promising lodes I ever saw. In conclusion, I beg to assure you that the prospects are as such to justify me in recommending to you the most spirited prosecution, believing, as I do, that such a course cannot fail to amply reward you in the realisation of large courses of lead ore, of the existence of which at a deeper point I have not the slightest doubt. I am urging the men to use their utmost endeavours to get down and see the lode in the 25 fm. level, previous to your next general meeting after this one. In compliance with my instructions to that effect, the men are working from one o'clock on Monday morning till twelve o'clock on Saturday nights, and on which scale I intend to work until the lode is seen in the 25 fm. level; and I hope and trust the weather will continue as favourable as now, which will enable us to reach the desired object at any rate early in April next. I may, perhaps, here be allowed to state that there is considerable credit due to the men for the great exertions they continue to use; and although so laborious is the work imposed on them, as just alluded to, they are cheerful, and I believe as anxious as ourselves to reach the next level in the least possible time, and all believing in the existence of a course of lead there. I send you by this post a box of lead, as broken from the lode in the 13 fm. level south, which of itself will give you some idea of its favourable character.—JOSEPH RICHARDS.

The accounts, showing a cash balance of 537, 3s. 3d., in hand, and an estimated balance required before next meeting, were passed, and a call of 2s. per share made. There were 250 shares forfeited for arrears of calls, and the committee were authorised to dispose of all the forfeited shares.

The box of lead referred to in the above report was examined by the shareholders present, who are looking forward with considerable interest to the laying open of the lode in the next level, which is expected to be reached within the next three months.

SORTRIDGE CONSOLS MINING COMPANY.

The quarterly meeting of shareholders was held at the offices, Winchester-buildings, on Thursday, Mr. W. A. THOMAS in the chair.

After the usual preliminary proceedings, the report of Capt. Metherell was read:—

Hitchins's engine-shaft has been sunk to a 50 fm. level, and a cross-cut is driven through the lode; also a level driven out its course about 4 fms., and so far unproductive, still a very promising lode, composed of quartz, peash, capel, mundie, and some spots of ore. A cross-cut is also driven south towards the south lode 4½ fm. ground very favourable. The 40 fm. level is extended east of the eastern shaft 45 fms., and for the whole distance it has produced 3 tons per fathom; the lode in the end is now worth 1 ton per fm. The same level is driven west 27 fms., and the lode has produced in places 3½ fm. and 1 ton per fm.; the lode now in the present end will produce 2 tons per fm., and, from the present appearances, in a little further driving I think we shall get a more profitable lode. The 30 fm. level has been driven since last meeting, and the lode for 2 fms. was very productive; the present end is now worth 4 fm. and the lode for 2 fms. is also sunk west of the 40 fm. level, which has been cut out very profitable tribute ground. A winze is

to the discharge of almost any quantity of ores and other matter from the various shafts. The boiler, and all the attachments, are in good order.

WATER-WHEELS.—The water, after leaving the dressing-floors, is collected in a channel cut for that purpose, and carried through the same around the hill to a part where we have erected a water-wheel, which we consider to be equal to the work of 12 heads of stamps. After the water leaves this wheel, it flows over a second wheel of less diameter, and which works six heads of stamps; by thus collecting the water 18 heads of stamps are worked, which is of great importance, as the tin now being raised from Standley's shaft can be reduced almost on the spot, instead of being carted to the steamer stamps. This will be found an economic and useful auxiliary.

DRESSING-FLOORS AND APPARATUS.—The dressing-floors are beautifully laid out on the side of the hill, and are replete with every mechanical movement for separating the tin from the pulverised mass. The principle is to separate the tin when it is in suspension in water. Capt. Webb has recently introduced an ingenious contrivance, by which the expense of saving the finer particles is very much reduced, and the quantity done much greater than before.

Since the last meeting, your committee deemed it advisable to appoint the following gentlemen as members of their board:—Messrs. George Nicholls, J. G. Parker, and W. A. Coome, which we hope will meet with your approbation.

In conclusion, we beg to observe that we have endeavoured to meet the network of difficulties which surrounded us as men of business, and have now got our affairs clear of all those troubles which were causing us much anxiety. The greatest weight now pressing us is the amount of liabilities, which are caused by the heavy losses we have sustained, as above stated. We are doing our utmost to give you value received for the extra calls you have been obliged to pay. The mines are improving, and before we have the pleasure of reporting to you again, we hope the returns will have much increased from the new works now in progress. The strictest economy is exercised, and we hope that you will lend us your aid and co-operation in bringing this great and important property to that state which we believe will reward us for our patience and outlay.

Jan. 30.—Since the last general meeting of shareholders, we have been exploring the 60, 56, and 52 fm. levels, principally on the north lode, which has been yielding great quantities of tin-stuff, but of low produce. We have not been fortunate enough to meet with any good work, consequently have not been able to increase the returns. We have abundance of such tin ground in these levels laid open, but shall require some richer ground in addition to this to enable us to do much better than we have been doing, which we might have reached before this time if our position would have allowed us to be a little more liberal in outlay. I am glad, however, since you consented (about two or three months since) for us to increase our work we have gone on clearing Northey's shaft, which we have completed from the 60 to the back of the 56; although all the old timbers had broken away, and we found it in a very broken state, it is now made complete and strong with new timbers, hung with bars of iron; but the 56 being broken also, we cannot sink deeper in this shaft until that level is cleared from the engine-shaft, which is being pushed on with all possible speed, by nine men; when this is completed it will enable us to reach that part of the mine where the best runs of tin ground are gone down, about the intersection of the north and south lodes. We have during the last two months also cleared and secured the 60 from sum to Northey's, which has been a great advantage in getting the eastern water back to the engine in that level, instead of allowing it to fall to deeper levels to lift again. We have also cleared the western part (Standley's shaft), and have during the last few days reached the point where the last parties, 35 years since, were principally engaged when they ceased to work; the price of the tin at that time was only 42/- per ton. These two objects will soon be in good order of working, and will doubtless give us some of their former rich quality tin-stuff, which, in addition to the upper ground we have hitherto been working, will enable us to increase the returns considerably, and lead us on to a great and good mine for many years to come. Our machinery is in a good state of working. During the last two months we have built a new boiler-house, and fixed another boiler to the pumping engine, which has enabled us to shut off the two bad boilers that we were so unfortunate as to get; this has effected a saving of 1 ton of coals per day. We have put a new slate roof over the tin dressing-floors, also six men at work cutting off the puddle water complained of. Therefore, it will be seen we have been doing plenty of extra work, independent of that, our returns would have covered the monthly cost.—J. Webb.

The subjoined cash account shows the entire of the receipts and expenditure since the company commenced operations in 1853:—

Cash received for shares, 1853	£15,350 0 0
West Polgooth	9,000 0 0
J. Hodge	300 0 0
Received for reserved shares and calls, 1854	4,091 14 0
Tin sold, 1854	4,135 19 0
Interest, 1854	204 19 5
Tin sold, 1855	6,059 8 3
Calls received, 1855	4,811 1 0 = £13,953 1 8
West Polgooth	£ 9,000 0 0
Commission, 20	1,084 7 6
Labour cost, from March, 1853, to Dec., 1855	15,820 7 9
Merchants' bills, same period	9,004 18 10
Hodge, for great engine	3,070 0 0
Sundries, 1853	381 3 10
Davidson's delinquency, as per Cost-book	1,905 16 10
Paid Mr. Hodge	5,087 6 7
Sundries, 1854 and 1855	479 17 11 = 43,833 19 3

Leaving balance in favour of mine

The CHAIRMAN said, there was one clause in their report to which he would refer—that relating to the water. It would be recollected that it was left in the hands of the committee to carry out the negotiations with Mr. Michael Williams, great complainant having been made by that gentleman relative to their foul water running over his property, to his detriment. With respect to the mill, they considered that it would be more beneficial to the company to conduct their negotiations in a friendly way than to attempt a settlement of the dispute by law. He should have told them that a bill had been filed in Chancery, with a view to compel the company to turn their watercourse into another district; and there were so many precedents in favour of Mr. Williams, that it was very doubtful whether they would have been successful had they allowed the lawsuit to go on. There was a mill which (although, of itself, of little use to the company) was provided with a leat, through which they could turn their water. The price of the mill had been stipulated, and Mr. Williams had consented, as he could use it, to pay half of the purchase money; and before the next meeting, he hoped he should be in a position to state that the purchase of the mill had been completed, and that they had power to go on developing the mines to eternity, if they found it worth their while. Mr. Williams had kindly consented to pay the costs, and in return for his share of the purchase money, the mill was to be transferred to him. He then proposed that the reports of the committee and of Captain Webb be adopted.

Mr. LELEAN thought it would be highly advantageous to the company to reduce the number of shares.

Mr. WALDICK entertained a directly opposite opinion: he considered it would be far the most advisable course to increase the number, as he saw no reason why new shareholders should come in and reap an extra benefit, whilst they had not participated in the payment of calls in the same proportion as the original adventurers.

Mr. LELEAN enquired whether, in forfeiting the shares for arrears of calls, it exonerated the holders from their liability for the debts of the company? He thought that it did not.

The CHAIRMAN said, there could be no doubt that the shareholders were liable until the day that the shares were forfeited by order of the Stannaries Court. With regard to the increase or diminution of the shares, he considered the proper time for discussing that subject was when the mine became valuable.

Resolutions, approving of the course adopted by the committee with regard to the water question, and of the steps taken with the defaulting shareholders, were passed, and a call of 2s. 6d. per share made. A vote of thanks to the committee, Capt. Webb, and Mr. Charles, the secretary, for the admirable manner in which they had conducted the affairs of the company since the last meeting, and to the Chairman, for his conduct in the chair, terminated the proceedings.

COLOGNE MINING COMPANY.

A meeting of shareholders was held at the London Tavern, on Wednesday, for the purpose of receiving an account from the directors as to the result of the application for the preference shares.—Mr. J. R. LATTEY in the chair.

Mr. PITTAR read the notice, from the *Mining Journal*, convening the meeting, and the minutes of the last, which were confirmed.

The CHAIRMAN said, the meeting of to-day was to lay before the shareholders the result of the subscription for the preference shares, and then determine the course to be pursued. He was sorry to say that only 37 members had subscribed, amounting to 1,096 shares, independent of the council. Since the last meeting, Col. Curtis and Mr. Neissen had proceeded to Cologne, and changed the company into the names of the administrative council as trustees, so that the gerant had no power now to do any act to injure the shareholders. Although Col. Curtis, their Chairman, was unable to leave Brussels to attend the meeting, he would call upon Mr. Pittar to read a letter from that gentleman, to prove that he had been most actively employed on behalf of the shareholders. (Hear.)

Mr. Pittar then read the following letter:—

TO THE ADMINISTRATIVE COUNCIL, COLOGNE MINING COMPANY, LONDON.
GENTLEMEN.—On my return from Rotterdam, last night, I found the enclosed letter from our continental avocat, awaiting my arrival. You will have learned by my letters from Cologne and Bonn, that on the 22d inst. Mr. Neissen started from the former place for Seigen, while I returned to Brussels, and proceeded thence to Rotterdam to communicate with Mr. Rush and our Dutch shareholders, among whom there is, I am happy to say, the most cordial unanimity of feeling; and whose sole anxiety seems to be to pay up at once the rateable contribution on their shares, and enable us to prosecute our operations with energy and vigour. Great disapprobation was, however, expressed at what to them appears the unnecessary and vexatious adjournment of our meeting on the 29th of December; causing delay in raising funds, and thereby preventing our realising profits we might certainly have received by more extended operations.

The fact that the Prussian authorities not only admit the correctness of Mr. Neissen's views, but recognise that our company was only "commandite" in form, while it was essentially "civil" in substance, affords abundant testimony of the strength of our position. If further proof be sought, it may be found at the Tribunal of Commerce in Cologne, where the Prussian Government has, by its own law offices, publicly justified the Cologne Mining Company, hitherto known as Hodgekin and Company, is *henceforth* a "Gewerkschaft," or civil company. Nor is this all; the mines belong to the company or shareholders; and the new statutes signed by the majority at our meeting on the 4th instant, by a notarial Act, raised by the Prussian consul in London, and accepted by the Prussian Government as the rules for our guidance, and formally entered as such on the public archives.

I deem it my duty to bring to your notice the conduct of Mr. Neissen: no labour seemed too heavy, and no fatigue too severe for him. He travelled for three successive nights, in order to employ the day in consultation with the Government mining officers, who, before executing the necessary formalities, examined the statutes, and then minutely tested the accuracy of the statement we put forth, and the calculations we made, showing the necessity of demanding a rateable contribution on shares. Mr. Neissen's object was to have this all effected before the meeting on the 30th, in order that our co-proprietors might no longer be harassed by legal objections to the practicability of our plan. I was present at many interesting conferences with the head mining authorities, and was much gratified by the spontaneous and high compliments they paid to Mr. Neissen on his thorough knowledge of their laws, and the strict conformity with their provisions observable in all he had done; in fact, as the Haupt Bergamt observed, "There is absolutely not a letter to alter."

I would direct your attention to a very able paper I forwarded to you some days since from Herr Hennies, our representative at Runderholz; it reflects great credit on him, and I think we should do well to call for a similar report from each representative, were it but

to test their ability. I have to congratulate you on the result of last month's operations at the Vahlberg, even with the limited means our funds enabled us to apply to its working. Regarding the failure of the plan for creating capital by preference shares, I confess I learned it with more sorrow than surprise. I was convinced that we could only raise funds by a rateable contribution, and I was confirmed in this impression by the surprise expressed by the Prussian authorities at our consenting to adjourn the meeting, instead of at once proceeding to the measures the laws provided for raising the funds required under our circumstances. We have, however, yielded to the wishes of the ministry as far as we could do consistently with our duty to our co-proprietors. We must now proceed with firmness to protect their interests, by at once calling for the contribution; and as to any legal proceedings, we shall be salutary and most confidently await the issue of any steps that may be taken against us.—J. G. W. CUZIO: *Brussels, Jan. 23.*

Mr. KEMMHEAD wished to know whether, if 4s. per share were subscribed, it would be sufficient to put the mines in a good condition? He would give the directors credit for doing the best in their power, but they had been in bad hands on the other side of the water; and he wished to know whether they would be subject to the same tricks again!—The CHAIRMAN said, the company was now transferred into the names of Col. Curtis and Mr. Moller, as members of the administrative council, and they had got rid of the gerant, and would never be in the hands of one individual again.

Mr. PARKS PITTAH then proposed the following resolutions, which were seconded by Capt. H. FENDALL:—

The creation of capital to meet the liabilities of the company, and continue the working of the mines, being absolutely necessary, it is resolved that a rateable contribution from each shareholder, not to exceed a rate of 4s. per share, shall be made, the 4s. upon each share to be paid into the bankers of the company as follows:—2s. on or before Feb. 20 of this year, 1s. on or before April 21 next, and the remaining 1s. on or before June 20 next. With reference to the shareholders willing to respond to the call, but who may not find it convenient for the moment to do so, the administrative council are hereby authorised to make such arrangements with them, with regard to security and interest, for payment of the calls within a limited period, as they may deem advisable for the mutual benefit of the company and the said shareholders. Holders of original shares, voluntarily responding to the calls by the dates specified, to be entitled to a 1% preference share for every 20s. paid up by them, and which will be given in exchange for the bankers' receipts. These preference shares are to bear 6 per cent. per annum interest out of profits, and also to share equally with original and reserved shares in the dividends; and the administrative council are hereby authorised to issue the said preference shares, to be signed by two members of the council.

The CHAIRMAN said, the resolutions being now before the meeting, he should be happy to answer any questions, or give any information.

A SHAREHOLDER wished to know, if they paid the 4s., whether they would be liable to pay any more calls?—The CHAIRMAN said, they could not even compel them to pay the 4s.; and, under the Prussian law, he believed they would not be liable for any debts; but Mr. London, the solicitor, could better answer that question.

Mr. LOADEN said, they were even more secure than if under the Limited Liability Act, as no shareholder was responsible unless he gave his consent to incur debts. If another call should be required, and it was not paid, the shares would be liable to forfeiture, unless the parties were fortunate enough to sell them.

A PROPRIETOR wished to know whether it was expected that the 90000, would be sufficient to bring the mines into a profitable state of working?

The CHAIRMAN assured them that the council conscientiously believed that the money would be amply sufficient to bring the works into a profitable condition, and it was possible they might not require the last 1s., when it would not be called for.

The resolutions were then put, and carried unanimously; and, in accordance with the laws of Prussia, the proceedings were signed by the shareholders present.

A vote of thanks was passed to the Chairman, and the meeting separated.

CARVATH UNITED MINING COMPANY.

A meeting of shareholders was held at the offices of Mr. W. C. Foulkes, 58, Old Broad-street, on Tuesday, Dr. BEATTIE in the chair.

The SECRETARY read the notice convening the meeting; and the following highly satisfactory report of the prospects was received from Capt. Webb:—

Since my report for the last general meeting, we have completed sinking for the 20 fm. level, and intersected the lode, full 10 ft. wide, and I am happy to say its character and richness are beyond all anticipation (at this shallow depth) and enough to meet any moderate man's wishes. The north part is a very promising copper lode, which will produce good parcels of ore from the 20; but I am persuaded in sinking deeper, we shall discover great deposits. The south part is a splendid lode for tin: we have opened out about 17 fm. upon its course, and each end still continues good. The west end is driven by four men, at 3s. per fm., and an excellent lode; the east end by four men, at 3s. per fm.—a real course of tin: we broke a rock of tin to-day, about a ton in weight. We have extended the 10 fm. level about 50 fm., through a large and good paying lode. From the first, we were highly pleased with this level, and had every reason to expect an improvement in the 20, which has eclipsed it; from which fact, therefore, we may reasonably anticipate a long run of tin here. We are doing the necessary work for sinking for a 30 fm. level on the course of the lode; the tin and copper from the sinking of the shaft alone, with present prospects, will nearly (if not quite) pay the cost of the mine; but every feature raises our expectations for a rich and lasting mine. The new steam stamping-engine has been working a few days with 12 heads, and we are attaching 12 more. I need not repeat my sanguine opinion of this mine: it will be sufficient to say that the cost is very extensive. We have good machinery, excellent prospects, and the returns will soon confirm all that has been said.

The accounts were then submitted, which showed:—

Balance brought from last account	£1250 18 6
Received call of 5s., on 6400 shares	1600 0 0
Received for copper and tin sold	295 17 2
Interest on deposit account at bank	14 10 3 = £3161 5 11
Deduct—Paid mine costs for nine months, to end of Nov., including machinery, &c.	2584 16 0

Leaving balance in favour of mine

Mr. BROWNS (the purser) was present, and gave a very clear and detailed account of the working of the mine from its commencement. He stated they had about 1,500' worth of tin-stuff at surface, on which the steam stamps had just commenced working, besides about 10 tons of copper ore, nearly the whole of which had been taken from the lode in forming the shaft, laitance, and wings; and that the backs were as yet scarcely touched. There were now 24 heads of stamps attached; they were looking out for 12 more, and expected they should soon require 12 in addition, making in all 48. The operations upon this lode had only been commenced about six months ago, and they had now begun to work at a profit.

A SHAREHOLDER enquired when they might expect dividends?

Mr. BROWNS said, it was the wish of the shareholders in the county, who held a majority in the mine, that, before declaring dividends, a reserve fund of about 2000, should be created—which course was at once approved by Mr. NORSBURY, and the other shareholders present.

It was stated also that the Gewans copper lodes traversed the sett further north of the present workings, which had not as yet been opened upon.

The meeting was highly satisfactory, and terminated with a vote of thanks to the Chairman.—A meeting is shortly to be held on the mine.

UNITED MEXICAN MINING COMPANY.

The general half-yearly meeting of shareholders was held at the offices, 5, Finsbury circus, on Wednesday.—Sir JOHN EASTHOPE in the chair.

Mr. ARTHUR WESTMACOTT (the secretary) read the notice convening the meeting, the minutes of the last, and the reports submitted at the previous half-yearly meeting, which were confirmed.

The report on the present position of the company's affairs was then read:—

In placing before the shareholders their half-yearly report, the directors beg to remark that the mining operations mainly carried forward during the past six months have been works of a progressive nature, such as making shafts, rather than those of a kind adapted to explore the veins of the mines to develop their value, and the board, condensing the details of the advice received from Guanajuato, proceed to make a general statement of the several undertakings.

JESÚS MARÍA Y JOSÉ.—The new shaft had obtained a depth in the month of June of 56 varas. In June the frente or level of San Juan had been resumed, and 5 varas driven in it. The lode was from 8 to 9 varas broad, with ore against the upper wall, and occasional stones in the main body, about 30 cargas being extracted. In the neighbouring mine of Villarino, at a distance of 60 varas from the dividing line between the two mines, ore of a very rich description was cut, which promised to be abundant. It was some 60 varas deeper than our lowest point in Jesus María, which, allowing for the difference in surface level, was in reality only about 20 varas. This discovery is important and interesting to the proprietors of this company, as it leads to the hope that the vein in our own territory may be found equally valuable when the completion of the new shaft may enable explorations to be made at a greater depth. In July, the depth attained in the new shaft during the four weeks was 8½ varas. The masonry work in the mouth of the shaft was also proceeded with. In the frente of San Juan 14½ varas were advanced, without any notable change having occurred in the vein, further than an inclination on the part of the ore to make towards the lower wall. Notwithstanding the unusually heavy rains which had fallen, the water in the pozos did not rise rapidly. The operations of August were confined to the new shaft of Santa María and the frente of San Juan. In the shaft, the masonry work in the mouth was finished, and the total depth gained was 70 varas. In the frente of San Juan, 14 varas were driven in poor and variable vein, with threads of ore appearing and then dying out. The adjoining mine of Villarino, which was reported as improving the previous month, increased its extraction during August to some 800 cargas of ore, worth it was stated about \$5000. The ore, while first discovered, appeared inclined to make towards our territory, and further investigation proved that it increased in quantity and improved in quality as it approached towards us. During September the operations proceeded with the new shaft, the frentes of San Juan, the extraction of the water from the pozos,

expecting that they would be enabled to accomplish the work without making any further call on the proprietors.

Mr. PHILLIPS thought that they could not rely too much on the immediate payment of the debt due from the Government of Mexico, as they would have to form a new Government before anything could be done. Three years ago, he (Mr. Phillips) suggested the propriety of sinking the shaft, as he knew they could not do without it. If they had done so it would now have been completed. We very much doubt whether they could get down 163 fathoms at the end of the year. The proprietors ought not to feel disappointed if the shaft should not be completed by that time. He supposed they expected to get ore at 273 fathoms, and intended to drive levels, but he believed they might have to go down 320 fathoms, in all, to cut the lode and come under the ore ground. He hoped they would not attempt to raise ore until the shaft was completed, as it would cost them doubled the amount. Nothing could be done without the shaft; it was absolutely necessary, and every month they would see that more clearly.

The CHAIRMAN said they were very much obliged to Mr. Phillips, who was well acquainted with the subject. He spoke with confidence, that the mine would be of no value without the new shaft; the drainage and ventilation of the mine required it.

The report was received and approved unanimously.

A very cordial vote of thanks to the Chairman and directors, with expression of satisfaction at the management of the company's affairs, terminated the proceedings.

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—M. White, Jan. 28: The south lode in the 80 fm. level, west of Davey's engine-shaft, is worth for copper ore 50¢ per fm. This lode, in the same level, driving east, is 4 ft. wide, worth for copper ore, in the present end, 12¢ per fm., with an appearance of improvement. The winze that was sinking below the 60, south of this shaft, is communicated with the 80, at which place we have set a pitch on tribute to six men, at 1s. 6d. in 1'. The 80, that was driving west on the north part of the lode, has intersected the western part of the flooan. All the other parts of the mine are just as reported last week. The skip timber is fixed from the 140 to the surface, and this day the shaft-tackle is being fixed: by this you will see this work is near being completed.

BALLYVIRGIN.—E. W. Smith, Jan. 29: The end driving north on the course of the lode is yielding about 3 tons of copper ore per fm. The end driving south on the course of the lode is yielding about 2 tons of copper ore per fm. The stope in back of the 10 is much improved since last reported on, and has every appearance of still further improvement; it will now yield about 30 cwt. of copper ore per fm. The piece of lode near the bottom of the 10 continues the same, yielding from 5 to 5½ tons of copper ore per fm. I shall have 50 tons of copper ore ready for market on Saturday. The 65 tons of copper ore sold at Swanes on the 29th inst. produced 7322. 8s. 6d., the average being upwards of 12 per cent.

BEDFORD UNITED.—J. Phillips, Jan. 30: The lode in the 30 fm. level east is 3 ft. wide, yielding about 2 tons of ore per fathom. We are driving by the side of the lode in this level west. The lode in the 115 west continues to yield 2 tons of ore per fm.; in the same level east there has been no lode taken down since last report. The stope in the back of this level are worth 7 tons of ore per fm. The lode in the 103 is 2½ ft. wide, producing good stones of ore. Jackson's stope, in this level, will produce 5 tons of ore per fm. The lode in the 35 is looking much the same as reported last week—producing good stones of ore. The tribute department is looking just as it has been for some time past.

BOLENOWE.—W. Roberts, Jan. 26: The 50 fm. level, driving east, is improved; lode 4 feet wide, containing gossan, mundic, and a little ore. In the 30 west the lode is 3½ ft. wide, composed of gossan and large stones of mundic.

BORINGDON CONSOLS.—W. Godden, Jan. 31: The 76 fm. level cross-cut is driven south of Annie's shaft 2 fms. 2 ft. The end is very wet for driving. We have set a rise in the back of the 12 to two men, where we first discovered the copper ore on the counter lode. This lode is turning out good work. The lode in the 12 end is much the same as when last reported on.

BRONFLOYD.—J. Humphreys, of Darren Mine, reports, Jan. 29: The shaft is now down 16 fms. 3 ft. from surface, and at this depth is in the lode, where a plat was cut north-west of the shaft; I cannot say how wide the lode is, but it is mixed throughout with ore, saying work, and will only require to go through the grate. If you take my advice, I should have a cross-cut from the new shaft under the old mine at once, because the old men did not sink under the adit of the old mine. You can set a tribute-pitch in the adit that will pay a profit, by all appearances. I have never seen a lode in this neighbourhood more likely to make a mine than Bronfloyd lode, and I really believe the two lodes will come together at 20 fms. depth, when it is very likely to make plenty of ore. It will take three months to sink the shaft through to adit, and, according to my dialling, the adit will have to be extended 8 fms. north-west before it will be under the shaft.

—J. Jones, Jan. 30: The depth of the No. 2 shaft is 16 fms. 3 feet, 2 fms. 1 foot being part of the present contract, at 12½, 10s. per fathom. The plat or lode is 9 feet high, 9 feet wide, and 10 feet long, for which a bargain was made of 50¢. We have yet to sink 5 fms., which will take about three months to do. The shaft and lode are in the middle of the ore ground, with spots of ore all through it, but the best ore and ground are on the south side. I should recommend a cross-cut south as soon as the shaft is through to go under the old workings, and, from all appearances, it would pay well, as I believe that the two lodes are coming together by going down. In the adit I found that the shaft was north of us; we drove 1 fm., ground very hard, with spots of ore. As the days are so short, and the weather so bad, we have not attempted to alter the office, although everything is getting ready. Capt. Humphreys fully examined the mine yesterday.

BRYNFORD HALL.—W. Francis, Jan. 31: We have soft ground coming up in the bottom of the 50 fm. level, west on the Milver vein, and we expect a speedy improvement. The stope over the 50 continue a steady and average yield of about 1½ ton to the fm. We have put in a cross-cut south from the driving over the level, and discovered an important branch of the Milver vein. At present we cannot estimate the yield; what we have seen, however, since cutting it to-day, is as good as any part we have yet opened. A bed in the rise over the 50, on Woodland's vein, still disorders the vein, but we expect to be through it in a few days. We have, since last meeting, discovered a good run of ore to the north of Matthew's shaft, a little below the 30, which is likely to lead to important results. We have broken 4 tons from this part since Friday last. We have seen the ore 10 ft. in length, of what appears to be settling from the pipe, hitherto worked in a master vein; other workings progress regularly. We shall have 20 tons prepared for the sale on the 14th inst.

BRYNFORT UNITED.—J. Roach, Jan. 31: There is no alteration in the appearance of the lode in the 10 fathom level east since last reported on; the men have been chiefly engaged cutting ground, assisting to lay tram-road, &c. The lode in the winze sinking under the 10 presents a better appearance; it is still producing good stones of ore, and will, no doubt, become more productive at an early date. The lode in the rise above the top of the slope is also improving for ore, but the ground had been hard during the past week. The eastern part of the stope is now worth 15s. per fm.

CALSTOCK CONSOLS.—W. B. Colliom: North Lode: In the eastern end the lode appears to be increasing in size again, although at present poor for ore; in the western end there is a good bunch of ore. South Lode: The men have resumed driving east on the south part of this lode, which is from 6 to 12 in. wide, and contains a good branch of copper ore on the footwall. There is no alteration to report in the western level on this lode; the two branches appear to be approaching each other, and will form a junction similar to that on the eastern side of the cross-course, where a good bunch of ore was met with. In the stope there is no alteration; they are yielding a fair average of ore per fm.

CALSTOCK UNITED.—W. Cooke, Jan. 26: There is nothing fresh to report this week in the 60 fm. level west, as the men have been mostly employed taking up wood and iron-rods, and other materials, from Caroline's shaft. The cross-cuts north and south are the same as last reported. The tributaries on the tin lode are working well, and breaking some good work; I have no doubt they will get good wages.

CAMBORNE CONSOLS.—W. Roberts, Jan. 26: The 50 and 33 fm. level cross-cuts north are progressing favourably. In the 20, west on the counter, the lode is 2½ feet wide, producing mundic, blead, and stones of ore. Other parts of the mine are without alteration.

COLACOMBE.—S. Mitchell, Jan. 29: During the last month the 63 fm. level cross-cut, at Morris's engine-shaft, has been driven south 5 fms. The 50 has been driven west of Morris's shaft 3 fms. 3 ft. The lode in the present end is a good course of ore, worth about 25¢ per fm. The 50 has been driven east of Morris's shaft 3 fms. 1 foot 9 in. There is no alteration in the lode since last reported on: 17 fms. 3 feet 2 inches have been stopped in back of this level. The lode is still a good course of ore, worth about 30¢ per fm. The western shaftmen are at present engaged casting and dividing the shaft, erecting whin, &c., for the purpose of drawing their stuff, which will occupy three days longer to complete, when the sinking of this shaft will be again resumed. This shaft is sunk altogether 4 fms. 3 ft. below the adit level. The lode in the bottom of the shaft is a good course of ore, worth from 20¢ to 30¢ per fm. All other operations progress favourably.

CROW HILL.—J. Puckey, Jan. 26: Since the present company was formed, we have sunk the engine-shaft from the 45 to the 55; the cross-cut has been driven 14 fathoms to cut the south lode, and the south lode has been driven on about 10 fms. east, and about 10 fms. west; in both these ends the lode is of a good size, from 2 ft. to 2½ feet wide, and composed of mundic, a little lead, black jack, and spar, altogether a most kindly appearance for the production of silver-lead, and the stratum in which it is embedded cannot be of a more congenial character. The cross-cut in the 55 is driven north about 7 fms. from the south lode to cut the north lode, which is still before us; the ground is favourable, and if no alteration in the regular underlay of this lode should take place, we expect to cut it in about 3 fms. further driving. From the character of this lode above, as well as from the apparent dipping of various branches, most of them containing lead, towards this lode, my opinion of it is favourable; and I may say, that although longer time has been required to prove this mine than we anticipated, yet there is nothing to alter my former opinion, but, on the contrary, the indications in depth are very encouraging, and I strongly advise that it should be further prosecuted: there are great probabilities of success, and few mines can be proved at so small an outlay.

CUSBERT UNITED.—J. Trewinan, Jan. 26: At Trewinan, the lode in the 55, south end, is 1 ft. wide, composed of quartz, prian, mundic, and lead, worth from 1 to 2 cwt. per fm.; the stopes in the back of this level are worth from 3 to 4 cwt. of lead per fm. The lode in Trewinan's shaft is 1 ft. wide, improved in appearance, now producing stones of lead. There has been nothing done below the 56 since Monday last, in consequence of a breakage which took place of Trebiloean flat-rods, and in Trebiloean engine-shaft, but up to now it is all repaired, and in good working order; had this breakage not taken place we should have had more ore at surface than we now have. We have on the mines, dressed and undressed, about 32 tons of lead ore.

DEVON AND COURTEENAY.—T. Bawden, Jan. 30: The lode in the pitch in back of the 90 will turn out 5 tons of ore per fathom, or worth 40¢ per fathom.

DEVON BURRA BURRA.—John Lord, Jan. 31: we have suspended sinking the shafts until we get the rods and lifts on our new shaft. The men are engaged making a lead to take the water from the new shaft to run over the wheel at White's shaft. I have no alteration to notice underground.

DEVON WHEAL BULLER.—W. Nelli, Jan. 31: In the 22 end, both east and west, the lode is much the same as last week, producing good stones of ore, with every prospect of a speedy improvement. In the 20, driving east, the lode is 3 feet wide, and of a more promising character than we have seen since we commenced driving, composed of mundic and ore. In the western end of the same level there is no alteration, still producing good stones of ore. The stope in the back of this level are producing good work.

DHURODE.—Wm. Tonkin, Jan. 22: The new engine-shaft is down 9 fms., and is sinking through an even course, with branches of quartz mixed with copper. We are driving west from the south counter, at deep adit, to come under the engine-shaft at about 3 fms., and shall then begin to sink it to the 10 fm. level, to expedite the work, and expect to be down to the 10 by the time the shaft is down to the deep adit; the ground in this driving is composed of elvan, quartz, and killas, with good faces of copper. Our stopes under the deep adit are on an east and west lode, 5 ft. broad, producing good ore stuff for crop dressing and the stamps. We have only three cores on these stope this month, but hope to double them next setting. The branch of solid yellow copper met with in the early part of the month in the footwall of this lode did not extend further north than about 4 ft.; it is a north and south branch, running parallel with the cross-course, and taking the same dip, varying in breadth from 4 to 10 inches; it is going down, and as we deepen our stope we shall be able open upon it again. We completed the shipment of 78 tons of copper ore last week.

EAST BIRCH TOR.—R. Etheridge, F.G.S.: The north lode, going west, is improving, both in the shaft and deep adit, each end looking very kindly, taken at per fm. The stope on the north lode, east of Dix's shaft, are equal as good as last reported; the lode is 3 ft. 7 in. wide, and is being taken down at 25s. per fm. The stope on the south lode in the 12 fm. level, east of engine-shaft, are looking better, yielding fine stones of tin. On the south lode, west of engine-shaft, the end and stope are poor, being in hard ground. The captain is using all energy in driving on the north lode west, for the purpose of crossing north, to intersect other more northerly lodes. We shall send tin to market next week.

EAST BLACK CRAIG.—R. Williams, Jan. 28: The 43 fm. level end west has spots of lead, with a drusy carbonate of lime of a promising kind, but being wet makes it slow for driving. The 12 end west is in a kindly rider ground, but there is not enough open yet for us to judge what it will make. The winze under the adit west is in fair ground, and in 6 or 8 feet more will be down on the 7 fm. level, if that end be driven so far. In the side adit east the men have found the north wall, and will now drive west to meet the adit from the shaft; then we shall have a secure adit all the way. One of the pitches has improved a little, the others are much the same.

EAST GARRAS.—J. Champion, Jun. 30: We have six men at work in the lobby for the new adit in the north part of the set, to intersect the north and south lodes; then by driving on its course will come in the shaft about 20 fms. from surface, which we hope to complete by March. We have also three men driving the adit level east in the south part of the set, to cut the same lode, which we hope to do in about two months.

EAST HALAMANNING.—Mark Reed, Jan. 29: On Trescaw Moor lode, Pollard's shaft is sinking below the adit level, by six men; the lode is 2 feet wide, worth 20¢ per fm. for tin. This level is driving east from Pollard's shaft, by four men, the lode is 1 foot wide, opening tribute ground. We have advertised for a water-wheel from 24 to 30 feet diameter, and 7 or 8 feet in the breast, which in all probability will be of sufficient power to work the mine to a 50 fm. level. An expense of about 10, will complete the water-course. The prospects of this mine are very encouraging.

EAST WHEAL RUSSELL.—W. Methewell, Jan. 31: We have no material improvement in the 100 or 60 fm. levels since last reported. We have taken down some of the lode in the 55 east; the appearance is just the same as when last taken down, producing good work. We have not taken down any of the lode in the end of west of cross-cut since my last; we are at present desuing the lode.

EAST WHEAL VOR.—J. B. Wilkin, T. Wren, Jan. 30: During the past month the shaftmen have been engaged fixing plunger-lifts, and making arrangements for sinking the engine-shaft, which is now 2 feet below the 60; it is set at 22¢ per fm. The 60 has been driven west of the engine-shaft 1 ft. 6 in.; it is now suspended, the men having declined driving it for the price offered. At the old engine-shaft a capstan and shears have been erected, and preparations are being made for draining. We have been through the westward adit, and find there is another bunch of tin worked on in the adit further west than any of our present workings; how deep it has been worked we cannot tell, but we hope to turn it to account after the pitwork is fixed. We also found passing down the adit that it crosses the south lode, which has a promising appearance, and we shall in the spring drive a cross-cut from the 12 to 20 to see it. The materials for draining the mine and casting down the western shaft will be expensive; but another month will close these costs, and then we hope to get some of the tin so long spoken of as being in the bottom of the old mine. Ore sold last week, 1912. 17s. 4d.

EAST WHEAL WREY.—W. George, Jun. 30: During the past month, the adit cross-cut has been extended towards the shaft 16 fms. 2 ft. 3 in., leaving about 11 fathoms further to drive; here the ground, although a little harder than last reported, is still favourable, now set at 32s. 6d. per fm. Every exertion is made to push this end as fast as possible, that we may the sooner commence operations on the lode, which I hope will be in about a month from this time.

EE DONALD.—J. Muffet, Jan. 25: There is no alteration in the winze sinking under level A, on the Smiddy lode, since I wrote you last. Level B end, driving west on this lode, is still taking the same direction as when last reported on; that is, the north wall coming round south from its regular course 3 ft. 6 in. in the fathoms; I expect it will take a week or two more before it will take its course west. The back stope over this level is worth 6 cwt. of lead ore per fm. I expect to complete the deep adit level, C, in order for driving this week. There is very little work doing at surface, on account of the snow.

FRANK MILLS.—J. P. Nicholls, Jan. 30: During the past week preparations have been made to lay open and drive on the east lode, south of engine-shaft; the lode has been cut through to-day, and proved to be equal to our expectations, it is full 2 feet wide, leading through. The 60 end north, on east lode, has been extended 10 fms. from shaft; the lode throughout, on an average, is worth 10 cwt. of lead per fm. The 60 cross-cut is driven west from shaft 11 fms. through very congenial ground for lead; there now remain about 5 fms. more to be driven to cut the west lode, which, from all appearance in the 45, is very likely to be cut rich in this level. The 45 south since last report. The horse-whim has been removed, and the ground will be cleared for foundation of steam-whim by Tuesday next. We have 7 tons of lead dressed, and several tons at surface remaining to be dressed, besides a large quantity of dredge, which is put aside for the crusher.

GARREG.—J. Trewinan, Jan. 30: The lode at the engine-shaft, sinking under the 40 fm. level, is without change since my last report, being 5 ft. wide, composed of carbonate of lime and clay, and producing very fine lumps of lead ore. The winze sinking under the same level is in a lode 4 ft. wide, producing 8 cwt. of lead ore per fm. It will be still disordered and unproductive. We have about 2 tons of ore cleaned, but shall not be able to send any to market for next sale.

GAWTON UNITED.—J. Hamby, J. Trethevy, Jan. 31: In the cross-cut driving south, to cut the great south lode, the ground is moderate, and from 6 to 7 fms. more driving will see this important point, where I have no doubt we shall have a good lode, more especially so near the junction of the two great lodes, where we shall have, I have every reason to believe, a good course of ore. In end driving west we have a great change; the end that was quite dry a short time since is now flowing with water, and has drained dry the 24. Although the 30 is not so far west as the 24, this looks well to be coming near a large lode, and I have no doubt of a course of ore coming down from the 24, which a few fathoms more driving will show. In the 24 end we have a fine lode, large and ore, turning out 3 tons or more per fm.; this is a very promising end, as it is approaching the junction of the two lodes referred to in the 35. In the stope we have commenced taking down the lode, which is looking well, producing a fair quantity of ore. We have on the floors in course of dressing from 25 to 30 tons of ore per fm.

GREAT ONSLOW CONSOLS.—G. Richard, Jan. 30: There is no important change to notice in the ground at engine-shaft since last report. The lode in the 72 is very large, and yielding some good ore. The stope below the 60, west of Stephen's winze, are worth for ore 54¢ per fathom. The lode in the 60 end is worth for ore 10¢ per fm. The lode in No. 1 stope, over said level, is worth for ore 9¢ per fm. The lode in the 25 is not so good as 21¢ per fathom.

GREAT SORTRIDGE.—T. Methewell, Jan. 31: The 25 fm. level, driving west, is still looking very encouraging, composed of the same qualities as when last reported on. We are proceeding with the sinking of the shaft for a fork, and the cutting of a plat, to lay down a railroad to tram the stuff with a wagon, instead of wheelbarrows, which will be greatly to our advantage. We have suspended driving the south cross-cut during the completion of the plat, and the laying down of the railroad.

GREAT SOUTH TOLGUS.—J. D. Jaw, Jan. 26: The lode in the 80 fm. level, east of cross-cut, is 15 inches wide, worth 10¢ per fm. In the 80 west the lode is 1 ft. wide—poor. In the 70 the lode 1½ foot wide, producing little ore, a very promising lode.

GREAT WHEAL ALFRED.—J. Stevens, W. Beagelhole, and W. Arthur, Jan. 30: The 160, east of Painter's shaft, will yield about 2 tons of good ore per fm., and has a promising appearance; this end has not been in constant driving for the last few days, as we have been confined to making a shaft-lift. The 160 west is extended 2 fms. west of said shaft, on the north part of the lode, which is soft for driving; 2 fms. behind the present end and the lode is 3 ft. wide, and from present appearances will produce 1 ton per fm.; we have set to take down the lode to end, when we think it will turn out much better than here reported. In the 170, west of Painter's, no change since our last. In the 160, west of Painter's, the lode is 20 in. wide, composed of spar, mundic, and ore, with a small portion of elvan, but not sufficient ore to work; we are expecting an improvement here daily, as we think we are drawing near the shoot of ore gone down in the bottom of the 148, which has taken a rapid dip to the west. In the winze in the bottom of the 148 the lode is from 3 to 4 feet wide, worth 3 tons per fm. Copper-house shaft is set to nine men to sink below the 148. In the 155, east of Field's engine-shaft, no lode taken down since our last. The 143, east of Field's, much as last reported; lode 2½ ft. wide, and will yield ½ ton of black ore per fm. In the 123, east of Falmouth shaft, on north lode, in cross-cutting north, we have not yet seen the north wall. In the 130 east, on Hedge's lode, the lode is 2 ft. wide, producing good stones of ore, and still has a promising appearance of further improvement. The 130 cross-cut, south from Falmouth shaft, is progressing favourably. The 137, west from Copper-house shaft, is worth about 15¢ per fm. Our tribute department is much as usual.

GREAT WHEAL BADDER

to be split up against the cross-course into branches. The men are driving south-east from what appears to be the flooan part of the lode, to reach the spar and capel part of it. The engine-shaft is sinking in a very favourable stratum of ground, and will soon be deep enough to drive off a 50 fm. level.

OLD TREWETHEN CONSOLS.—S. Keast, Jan. 30: At Wheal Thomas, we have met with a change of ground in the end, so much that we are obliged to timber all the south side of the level; the lode in the end is still very large, and of much the same character as last reported on. I have cut through the north part of the lode, and it is composed of capel, mandic, and spar, impregnated with black ore, of much the same character as the part we are carrying. We shall shortly want more timber.

OSREDD.—J. Trevethan, Jan. 30: The 40 fm. level, east of engine-shaft, on the new lode, are improved since last reported on, now yielding 1 ton of lead ore per fm. A stoper further west than the one mentioned will produce $\frac{1}{2}$ ton per fm. The two cross-outs in the 30—one to cut the Merlin's lode, the other to cut the new lode—have not yet met with any part of either. The tribute pitches throughout the mine are yielding fair quantities of lead, all working at 6d. 6s. per ton.

PEDN-AN-DREA.—J. Delbridge; J. Carpenter, Jan. 26: In the past month, the sumpens have been engaged cutting a plat in the 70 fm. level at stumps' engine-shaft. Clearing the 50 fm. from engine-shaft, on Martin's lode, and securing Wheal Spar-non adit. In the 80, east of Penrose's winze, on north lode, the lode is from 3½ feet to 4 ft. wide, yielding a little tin; in the 80, east of engine-shaft, on Martin's lode, the lode is from 4 to 5 ft. wide, producing saving work for tin. In the 68 east, on Martin's lode, the stope is worth 22d. per fm.; in the rise in back of the 68 west, on Martin's lode, the lode is 3½ ft. wide, worth from 6d. to 8d. per fm. In the 60, west of engine-shaft, on Martin's lode, the lode is worth 12d. per ton, and now set on tribute at 2s. 6d. in 17. In the 55 rise, west of engine-shaft, on Martin's lode, the lode is disordered, and for want of air is suspended for the present. In the 68, west of cross-cut, on the great lode, the lode is yielding a quantity of tin-staff, now set on tribute at 5s. in 17; in the 65, east of cross-cut, on great lode, the lode is disordered and split in branches, set on tribute at 5s. in 17. In the 55 cross-cut, north of engine-lode, no lode has been cut; this cross-cut is suspended until we sink a winze from the 55 on a branch to prove the underlay of the lode. In the 40 cross-cut south, towards Bragg's, the ground is favourable for driving. Our tribute department is much the same. On the engine and Martin's lodes the ground bids fair to yield a quantity of rich tin-staff. Our steam-stamps went to work on Tuesday last in first-rate style; and we hope, in a few days, to set it to work permanently. Our sale of tin, on Thursday last, was 8 tons, which realised 56d. 5s.

PENBROKE AND EAST CRINNIS.—J. Dale, G. T. Trewren, Jan. 29: In consequence of the increase of water at Ried's whin-shaft, we thought it advisable to put the engine-shaft to drive out under the whin-shaft, which, by so doing, will enable us to let the water down to the 152. Smith's and East Crinnis shafts are progressing satisfactorily. In the stopes in the 90, east from Smith's shaft, the lode is about 4½ ft. wide, still worth 15s. per fm. The ground in the 70 cross-cut is still favourable for driving. In the 90 cross-cut, driving south-east from Smith's shaft, we have cut the wall of Pembrokeshire lode, which is letting out a great deal of water; but we have not as yet been able to see anything of the lode, but hope, if all be well, in the course of a few days to be able to give you some information respecting the same. On the engine and Martin's lodes the ground bids fair to yield a quantity of rich tin-staff. Our steam-stamps went to work on Tuesday last in first-rate style; and we hope, in a few days, to set it to work permanently. Our sale of tin, on Thursday last, was 8 tons, which realised 56d. 5s.

PENNANCE CONSOLS.—W. Burgeon: The lode at the shaft, sinking below the adit level, is 4 ft. wide, producing about 1 ton of lead ore per fm.; this shaft is now sunk 4 ft. under the adit level, and from all appearances the lode will greatly improve as we sink. I have no doubt but what we shall raise lead enough in sinking this shaft to meet the cost of the mine. I am happy to inform you that we have completed the fixing of the whin, &c.; therefore, we shall be able to sink about 2 fms. per week, and with six men, whereas before we had nine men, and not able to sink more than 6 ft. per week. This property is greatly improved during the last week, and I should further state, from present appearance, we shall shortly have a profitable mine. I will write more fully to you in my next.

PEN-Y-GEILI.—J. Trevethan, Jan. 30: The 20 fm. level, driving east, is still unproductive. The same level west is producing at times good stones of lead, with a more promising appearance than when last reported on, the limestones becoming considerably lighter. About 100 fms. further in advance of this end large quantities of lead have been raised. The 18, driving north at Plantation shaft, has a very promising appearance. We are of opinion that something good will be got from this, and would recommend the driving a level south of the shaft on same lode, by two men. This ground can be driven on for 2d. per fm.—the miners to pay all costs.

SEVERN MINES.—J. Reynolds, Jan. 29: The long-looked-for lode is come at last. Our 10 fm. level is worth 10d. per fm. for lead, and likely to improve. I expect this more than a month ago, and I find now that the hard bar of ground had actually heaved the ore further east than I anticipated.

SORTRIDGE AND BEDFORD.—T. Neill, Jan. 30: I find the new shaft on the copper lode to be down about 27 fms., the lode is still large, and very promising, producing gossan, prian, flooan, mandic, and copper ore. On Saturday last we set to nine men, to sink 10 fms. for the lode, east and divide the shaft to bottom, per bar-gain, for 13d.; and, if completed within thirteen weeks from that date, then will receive 104 extra, which will make 130d. The old level on the cross-course to clear and secure by four men, stabled 10 fms., at 1s. per fathom. The 35 has been cleared, in which two east and west lodes have been intersected, one of which produces some good stones of copper ore; the cross-course is large, and very congenial for mineral, and I have no doubt, when we intersect the great copper lode and drive west, it will be found productive for copper ore.

SOUTH BEDFORD CONSOLS.—J. Phillips, Jun., Jan. 30: There is no alteration to report at the engine-shaft. In the 49 fm. level west the lode is 3 ft. wide, producing 2 tons of ore per fm. The lode in Red Whim shaft is 4 ft. wide, producing 1 to 2 tons of ore per fm. In the 36 west the lode is 3 ft. wide, producing good saving work for tin.

SOUTH DEVON GREAT CONSOLS.—J. Cook, Jan. 30: We have to sink the engine-shaft about 6 ft. more to reach the required depth for the 50 fm. level, and if the ground continues as at present, we expect to get down in about three weeks; then we intend to cut through the cross-course, and drive on the course of the lode, and I think it very probable that in doing so we shall soon make a discovery of ore. The lode in the 37 west is about 1½ ft. wide, consisting of gossan and spar, interspersed with mandic and spots of ore, and presents a very favourable appearance; but it is evident, from the character of the lode here, that the ore lies deeper. The lode in the whinze is looking well; it is producing large lumps of mandic, and occasional stones of ore, which is all we have reason to expect at the present depth. The prospects of the mine were never better than at the present time.

SOUTH DOLGOATH AND CARNARTHEN CONSOLS.—W. Roberts, Jan. 26: The lode lately cut in the 60 cross-cut north is about 2 feet wide, composed of spar and spots of malleable copper. We shall continue to drive on the cross-course for the purpose of intersecting another lode some 15 or 20 fms. further north. In the 50 west the lode is disordered by a small cross-course.

SOUTH WHEAL ROBERT.—T. Cocking, Jan. 31: We have completed our plat, cut sufficient ground to hang tackle, widened the level, cut drains round shaft, and prepared sinking the shaft this morning.

ST. AUSTELL CONSOLS.—R. H. Williams, Jan. 30: At Dowson's shaft, in the 35 fm. level, we hope our cross-cut will reach the tin lode this month. In the 25 fm. level the end east is still in cross-cut strata of ground. I believe the lode will form under this ground in the 35. The end west in the 25 is nearly holed to the 25 to Young's shaft; we hope to hole this week. Our prospects for the look better as we open out our great lode. The sale of tin for the last four weeks, I think, is a good proof of the value of our lode, with only six or eight heads of stamps. In the western part of the mine, at Young's shaft, we have the following pitches at work: At the 35, on nickel, at 6s. 8d. in 17; in the bottom of the 23, on nickel, at 6s. in 17; tribute; as soon as his level is ventilated, by hoisting to Dowson's shaft, we can set other pitches on nickel. We have one tin pitch at work in the 25, at 12s. in 17; tribute; the tributaries are paid at the rate of 5d. per ton for their tin, and we are now realising at 7d. per ton, as the last tin will show. We have a great deal of tribute ground in this level that can be readily let from 5s. to 10s. in 17, tribute, as soon as the level is ventilated. In the 15 we have a copper and tin pitch working at 7s. 6d. in 11. I hope to get our new stamps to work in about three weeks, and also give a good return of tin at the end of March (say) 10 tons.

TAMAR SILVER-LEAD.—W. Robins, Jan. 28: In the 215 fm. level the lode in the end is 2½ ft. wide, producing 15 cwt. of lead per fm., the ground also being somewhat easier for driving. The three stopes in the back of this level are now yielding, on an average, 16 cwt. of rich ore per fm. The 205 continues much the same as for some time past. In the 190 end the lode is 4 ft. wide, worth 18 cwt. per fm., and the stopes are returning as follows:—No. 1, 1 ton 5 cwt.; No. 2, 1 ton 2 cwt.; No. 3, 1 ton; No. 4, 19 cwt.; No. 5, 17 cwt., and the additional ones as usual. The eastern lode, in the 175, is 2½ ft. wide, producing 15 cwt. of ore per fm., and the stopes in the back are likewise yielding 15 cwt. per fm. The stopes in the back of the 175 and 160 continue to yield favourably.

TAVY CONSOLS.—R. Williams, Jan. 30: The lode in the 56 east has rather deteriorated than otherwise. The stope in the bottom of the same level has improved, now worth about 4 tons of ore per fathom. The 68 east has not changed, but the same level west has improved in appearance, producing some stones of ore. The 36 west has been cut into; the lode is large, and very kindly; on its north side there is a leader 3 in. wide, carrying portions of copper ore. I have great hopes of these western explorations.

TEES SIDE.—R. Bray, Jan. 26: The water at Providence is down 13 fms., 3 ft. We have had a deal of trouble in keeping the water-course clear of snow, and the water has also been stopped 24 hours with frost since we started the wheel. The River Tees has risen very high, so much so as to prevent us driving the wheel its proper speed; there is also a deal of water coming down the roof of the 10, in consequence of the river being so high, this will keep us back a little; notwithstanding, I hope by Monday or Tuesday the water will be out. At Metal Band, the end driving east looks much better, and I hope soon to get something worth notice; in the cross-cut south the ground is much the same for driving, in this cross-cut we have met with some points full of ore, which makes us think we are not far from the vein. I have let again, to-day, 5 fms. in the end, at 5s. per fm., and 3 fms. in cross-cut, at 6s. per fm. You will perceive this is the same price as you gave last month.

TINCROFT.—Wm. Teague, J. Andrew, J. Trewethan, Jan. 29: North Tincroft: At the new engine-shaft, sinking under the 142, east the lode is 3 ft. wide, worth 7d. per fm. and copper 12d. per fm. In the 142, east the lode is 2 ft. wide, worth for tin 7d. per fm.—High-burrow Lodge: In the 162, east of Martin's east shaft, the lode is 4 feet wide, worth for tin and copper 12d. per fm. In the 162, west of Martin's east shaft, the lode is 4 ft. wide, worth 23d. per fm. In the 152, east of Martin's east shaft, the lode is 2 ft. wide, worth 3d. per fm. In the 140, west of Downright shaft, the lode is 2 ft. wide, worth for tin 9d. per fm. In the 120 the men are engaged taking down the lode east of the cross-cut, which is worth for copper 5d. per fm. On the whole, our prospects in these mines are very cheering.

TRELEIGH CONSOLS.—J. Prince, Jan. 26: The lode in the 40 fm. level, west of cross-cut, at Carr's, has improved in appearance, and is letting out more water. We have re-set to drive the end at 6s. per fm. The ground in the cross-cut extending north is favourable for driving—present price, 4d. per fm. We have cut through a small branch of ore during the week, and although much water issues from it, it does not drain the 30 fm. level; the end of the cross-cut is also wet. At Nicholson's, the lode in the 10 is 3 ft. wide, profitable both for tin and copper ore; it is fully worth 20d. per fm. but as the surface water has now become too powerful to enable us to drive the end, we have placed the men to stop the ground driven through, which is, however, not near so good as the lode is in the level, but the return of the

tin from the stuff which the tributaries are stamping will be the best criterion of its value. The western adit is cleared to the end of the old workings, the lode in which is small and poor; but a few fathoms behind it the backs are all taken away, and from we can see of the bottom, a pretty good lode is gone down, from which we have broken some good stones of ore, but nothing more can be done by it without steam power during the winter.

TRETEWETHEN CONSOLS.—S. Keast, Jan. 30: At Wheal Thomas, we have met with a change of ground in the end, so much that we are obliged to timber all the south side of the level; the lode in the end is still very large, and of much the same character as last reported on. I have cut through the north part of the lode, and it is composed of capel, mandic, and spar, impregnated with black ore, of much the same character as the part we are carrying. We shall shortly want more timber.

TRETEWETHEN CONSOLS.—J. Trevethan, Jan. 30: The 40 fm. level, east of engine-shaft, on the new lode, are improved since last reported on, now yielding 1 ton of lead ore per fm. The stopes further west than the one mentioned will produce $\frac{1}{2}$ ton per fm.

TREWETHEN.—W. Rowe, Jan. 30: Eastern cross-cut in the 50 is extended 22 fms. where the ground continues favourable for progress; the lode in the north end in this level is worth 12d. per fathom; in the same level south the lode is worth 7d. per fm.

We have commenced a stope in the back of this (50) level, where the lode is worth 9d. per fm. The lode in the 40, north end, is worth 10d. per fm.

The remaining stopes, in the backs of the 39 and 40, are turning out much as usual. All our surface operations are progressing satisfactorily, and calculate to sample 39 tons of crop and 15 tons of second quality ores about the 18th of next month.

UNITED MINES (TAVISTOCK).—J. Offord, J. Rowe, Jan. 30: The four pitches in the back and bottom of the adit level, west of the whin-shaft, are productive—set at 14s. in 17, at a standard of 40d. per ton, which at the actual price of the tin is 8s. only in 17. There is one pitch east of the winze, by two men, at 10s. in 17, same standard, or 8s. in 17, at actual value of tin.

We have cleared out all the stuff from the bottom of middle level, and set four men to stop at 25. 10s. per fm., and 8s. 6d. in 17, for all tin raised; also four men driving west from bottom of winze, at 32. 5s. per fm., to open tribute ground, and four men to drive south, through capels, from bottom of winze to south lode, computed 6 ft. distance, for 4s. 10s. the job.

As this winze and level on north lode yielded good work, we hope for an equal result in the same parallel and depth on south lode; and if so, our returns will be materially increased.

The engine keeps the water in fork by working only part of time. The shaftmen are cutting a plat in the west side of the engine-shaft, in middle level, to place tributaries work from same level, and all stuff from shaft below, to be drawn thence by steam-whim.

The cage is in course of erection, and will be at work next week. A run in the back of the level going west has stopped the returns of our tributaries till they repair it; this, and the frost a fortnight since, will delay our next batch of tin a few days.

We have completed the repairs of our calciner, and the burning-house is in full operation.

Most of the extraordinary expenses are now past, and all our operations are now of a profitable character.

On Saturday, we purpose to set another stope from engine-shaft in bottom of middle level on the same terms as the other, with as many men as can work to advantage. We will report further on Saturday.

The mine never looked so promising as now.

WEST ROSEWARNE UNITED MINE.

With reference to the letter which appeared in the Journal last week, respecting this mine, we are informed that the assignments of the leases have been purchased from the parties to whom they were granted, and a company formed, in 1024 shares, and upon which 2s. per share (2018s.) has been called, for the purchase and erection of machinery, &c., and independent of all law expenses, purchase money given to the original lessors, &c. Some communications have taken place with the agents of Sir R. Vyvyan, relative to the minimum rent in his lease; and if the company show a proper expenditure at the end of twelve months, without an adequate return, the master will then be dealt with liberally. It is not expected, however, that this rent will have to be paid more than one year, as there is every probability the dues will then amount to a larger sum, and, of course, supersede the rent. The operations have not yet been commenced with spirit, because, in the first place, the leases have only recently been legally assigned; and in the next, it would not have been economical or prudent to have commenced extensive surface operations during the short days and bad weather of the winter months, when the prices paid for the work done would have been at least a third higher than deferring a little. The parties concerned have, however, not been idle, as they have purchased an excellent 50-in. steam-engine, together with about 50 fathoms of pitwork, shears, capstan-ropes, chain, iron, &c., and a large quantity of other materials, all almost new, for the sum of 1000s., and in a few months these may be expected to be at work on the mine, every preparation being now in progress for that purpose. With regard to the position and prospects, we take the following from Mr. Murchison's book:—

"West Rosewarne is situated in the parish of Gwinnar, Cornwall, and between the Old Relistant and the Rosewarne United Mines, and on the same lodes; the former having made large returns and profits in a former working, and the latter being at present one of the best dividend mines in Cornwall. The shareholders in Rosewarne United spent 6000s., and between March and December, 1855, have paid dividends to the amount of 7356s.; while the market value of the mine is about 70,000s., the shares having risen in twelve months from 70s. to 273s., per 256th, or 13s. per 612th share, with the probability of a considerable further advance."

"This property has been very favourably reported on by Capt. Charles Thomas, of Dolcoath, Capt. Pascoe, of South Frances, Capt. Pope, of Wheal Bassett, Capt. Glanville, of North Bassett, and Capt. Roberts, of West Bassett, all of whom consider that the mine is well worth the adit level under the name of 'Gwinnar Consols.' An adit level, of an average depth of 23 fms., was driven the entire length of the sett, and a shaft sunk 29 fathoms below the adit. The 10 fm. level, a fair quantity of copper ore was found; about 25 fms. east of the engine-shaft, the ore was 3 fms. wide, of superior quality, producing an average of from 18 to 20 per cent. about 3 fms. west of Stephen's shaft there was an extraordinary deposit of ore, which extended diagonally 9 fms. wide, about 5 fms. above, and 8 fms. below the adit, the average thickness about 6 fms. This ore varied from 80 to 100 per cent. copper. At that time the standard for copper was an 80s. from 80 to 100, while it is now about 140s. It is intended to erect a suitable steam-engine at once, and soon after the water is drained from the old workings, it appears probable that some ore will be raised to assist the costs. The operations are under the practical management of Capt. W. Richards, of Redruth, the manager of Wheal Bassett, and one of the committee of Rosewarne United, South Frances, &c."

BRITISH MINES AS AN INVESTMENT.

We extract the following from the Appendix to the fourth edition of Mr. Murchison's work, just published:—

WEST PAR CONSOLS.—The large lode has lately been cut on the west of the cross-course, and is found to be one of great promise, being composed of fine gossan, thickly impregnated with native copper. The 45 fm. level is now being rapidly extended on this lode, and important discoveries are daily looked for, some black copper already appearing.

The shaft is also being sunk as fast as possible to another level, and the character of the ground is very favourable. The mine has lately been inspected by Capt. Chas. Thomas, Capt. Pope of Wheal Bassett and Capt. Seecombe of Phoenix Mine; the two first before the above lode was cut, the last since it was cut. Capt. Thomas reported—"About 80 fms. north of the present 45 fm. level, a new lode is discovered in a shaft sunk 14 fms. from surface. I could see it only to the depth of 7 fms., where it is 4 ft. wide, containing spots of green copper ore, and mandic, in quartz. I carefully examined the direction of this lode, and find it is pointing towards Par Consols Mine, and it is probably a continuation of one of the lodes in that sett. The length of the sett eastward, on the course of this lode, from the cross-course, is about 230 fathoms, and westward, on the course of all the lodes, about 200 fms. This sett lies west of and joins Par Consols, which has been, and still is, a valuable mine. It also lies north of and joins from Pembrokeshire and East Crinnis Mines, which were very rich for copper ore. In such a situation, and having several fathoms passing through it, I cannot but consider the mine as being well worthy of an official trial." Capt. Pope reported that—"If the mine be properly explored, I have no doubt it will well repay the adventurers; the machinery is of ample power, and only a small outlay will be required for working the same." Having recently inspected West Par Consols, Capt. Seecombe reported that—"The engine-shaft is sunk 45 fms., making the perpendicular depth below the surface 32 fms., and a level has been driven north on a cross-course about 47 fms.; in this driving, two lodes have been met with on the west side of the cross-course. The first is about 8 fms. north of the shaft, and the other near the end. The first cut has been driven on a short distance, and found to contain a small quantity of copper ore, but the indications are not sufficiently encouraging to enable me to recommend a further outlay on it at this level. The second lode cut, near the end, is about 5 feet wide, composed chiefly of gossan, quartz, prian, and peach, thickly impregnated with native copper. Altogether it is a lode of great promise—one that well deserves being explored, and I believe it will found to contain rich deposits of both copper and tin ore. North of the present driving in the 45, a lode has been sunk on about 14 fathoms. I was able to examine it to the depth of 7 fms., where it is about 4 ft. wide, composed of quartz, gossan, and peach, spotted with mandic and copper ore. So far as this lode is laid open, I consider its character such as deserves an official trial being given to it. It is more than likely that this is a continuation of one of the productive lodes now being worked on in the adjoining mines (Par Consols). Within the limits of the sett, which is extensive, there are no doubt many valuable lodes not yet opened, but the indications of those you have are quite sufficient to justify your developing the mine to a much greater depth, and I would recommend your sinking the sump as quickly as possible 30 fms. deeper, before you again cross-cut to the lodes. The sump is a soft light killas, in which I consider you will be able to sink full 3 fms. per month." It is

At the Gwydyr Park Consols meeting, on Jan. 26, the accounts showed a balance in favour of the company of 74s. 10s. 5d. A call of 6d. per share was made.

At Hayle Consols meeting, held at Hayle, on Monday, the accounts showed a balance of 13s. 17s. 5d. against the mine, and a call of 1s. per share was made. It was determined to sink a shaft east of the present workings, to take the great lode at about 10 fms. from surface; at about that depth, from the present very promising appearance of the lode, copper ore may be expected. Several agents present expressed a very high opinion of the mine.

At Old Tincroft Mine meeting, on Jan. 16, the accounts for four months ending Nov. showed—Mine cost, 132s. 9s. 5d.; merchants' bills, 79s. 17s. 5d.; Mr. Goldsworthy for grant, 17s. 1s. = 213s. 8s.—Call, 100s.; sale of black tin, 36s. 1s.; leaving balance debt, 77s. 7s., to pay off which, and provide for future working, a call of 30s. per share was made. Capt. Champion and Trewella reported the prospects of the mine to be very good, there being a considerable quantity of ground found in the backs which will pay well to return. There being no water charges, and the mine 50 to 60 fathoms deep from surface, it can be very cheaply worked. The south lode is reached, when ores will be raised for the market, as a good lode for copper ore is passing into this sett from the West Crimble boundary.

The South Devon Mine steadily improves. A box of ore has been received this week, and can be inspected at the office. Some stones of ore from the winze have been found, by analysis, to yield 35% per cent. of copper, and some from the shaft 33% per cent., which promises well for an early discovery of importance.

The Great Wheal Busy is likely to progress with considerable spirit.

Mr. M. Williams, M.P., has taken a large holding, also the Messrs. Harveys (of Hayle), and Sandy-Vivian. The re-opening of this mine is of great importance to the locality, as probably upwards of 1000 men will be employed for very many years.

Capt. W. Williams, of Caroline Wheal Prosper Tin Mine, has inspected the Queen of Dart Copper Mine for several of the shareholders.

The Great Howas United Mining Company held their meeting on Thursday, and according to the report, which will be found in another column, it would appear that the shareholders have at last been put in possession of a true state of the accounts, and certainly the difficulties have been of no ordinary nature. Captain J. Webb has been indefatigable in placing the mines in a sound working position, and it is fully expected that they will soon be got into a profitable state. A call of 2s. 6d. per share was unanimously agreed to, which it is expected will be sufficient to cover the existing liabilities, and provide capital sufficient for fully developing the property.

The sets adjoining West Damsel and Grambler and St. Aubyn has been lately obtained, and is considered to be one of the best pieces of productive mineral property in the Redruth and Gwennap districts; it embraces the West Damsel, United Mines, and Wh. Clifford lodes, and is to the north-east of Wh. Buller, and immediately south of, and parallel with, Grambler and St. Aubyn. There are several large lodes in this sett, some of which have been opened on a little in the back, carrying a beautiful gossan. In the 20, at West Damsel, which is within 50 fms. of the boundary of this sett, they have a splendid lode, composed of gossan and black copper ore. It has been very favourably reported on by Capt. Jennings, of Treasvean and West Seton; Capt. Pope, Wheal Basset; Capt. Dunn, Carr Brae Mines; Capt. Glanville, North Basset; and Capt. Michel, Grambler and St. Aubyn, all of whom are well known as men of the strictest integrity and soundness of judgment. Mr. Charles Bawden, of Tavistock, with a few influential gentlemen of Redruth, are the holders of this property.

During the week, shares have changed hands in the following:—

Dividends—Alfred Consols, Bedford United, Botallack, Carnorth, Condor, Devon Great Consols, Dolcoath, East Pool, East Wheal Margaret, Gornamena, Great Polgoon, Great Wheal Vor, Holyford, Lisburne, Marke Valley, Nantoes and Penhaw, Nether Heath, North Pool, North Wheal Basset, Par Consols, Rosewarne United, South Caradon, South Tamar, South Tofigus, South Wheal Frances, Speare Consols, Tamar Consols, Tincroft, Trebene, Trewetha, Vale of Towy, West Basset, West Caradon, West Damsel, West Wheal Seton, Wheal Basset, Wheal Buller, Wheal Clifford, Wheal Kitty (Uny Lelant), Wheal Margaret, Wheal Owles, Wheal Seton, Wheal Tremaigne, Wheal Wrey, Welsh Potosi, Sortridge Consols.

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At South Frances, a further improvement has taken place in the last week. The 104 fm. levels, east and west, on the new north lode, have both increased in value, and may be rated at 5 to 6 tons per fm. each end, of the value of 70s. or more. The 82 east has also improved considerably, and the lode has been cut very good at Richards' whin-shaft.

At Rosewarne United, the improvements are everything in favour of the adjoining mines—Rosewarne and Herland, and West Rosewarne; from the former of which great results are expected on the engine going to work, to enable the men to continue operations.

At Severn Mines, which are situate in the same parish as Bryntail, they have cut the lode in the 10'; it is worth 10s. per fm. for lead, and is improving.

At West Collacome Mine, the tribute departments are looking well; indeed, the mine never looked so cheery as at present. The sampling this month will be upwards of 3 tons; and the next two months' sampling, it is expected, will exceed 40 tons of rich quality ore. The engine, with pitwork, is working well.

From Bronfod Mine (Jan. 24) the agent reports that the plat is now finished, but as the one has continued good on the south side, he has set the men 1 fm. to open for that wall of the lode, and to prove the ground, as this can be done while the surface-men are getting the whin, &c., ready to proceed with the sinking of the shaft. The south corner of the plat contains some excellent stones of ore (say 12 in. by 6 in. solid), and taking the plat throughout, he estimates its worth at 7 cwt. per fm. Capt. Humphreys, of Darren, has also inspected this mine during the past week, and his report appears in another column.

From Catherine and Jane Consols, Capt. Callander reports in C level that in cross-cut No. 2 there is a fine course of ore, worth about 80s. per fm. In B level the lode is producing about 2 tons, worth 30s. per fm.; the lode in the sink is in an improving state, although the miners were much incommoded by the influx of water. The new dressing-doors are nearly completed, but operations have been considerably retarded, owing to the state of the weather.

From Wheal Morgan, the agent reports that in driving north under the road the lode is improving, composed of gossan and spar, and on the footwall a layer of silver-lead ore, 3 in. solid; this is becoming more valuable every foot. A level is about to be commenced on this lode, which it is anticipated will lead to such results as will enable this mine to rival some of the neighbouring adventures, which have returned nearly a million sterling profit to the adventurers.

From Silver Brook Mine, Capt. Hoskings reports that the lode at the engine-shaft, below the 4s, is 7 ft. wide, composed of quartz, carbonate of iron, and lime, intermixed with zinc and good quality lead ore, looking very promising. In the 4s, driving south, good stones of ore are being produced. The total number of persons employed on the mine is 69, and ore to the value of 320s. has been just shipped.

From Wheal Crebor, Capt. Dobro reports:—In the 54 cross-cut we are cutting into the lode; it appears to be a large, masterly lode, and very wet. I hope in the course of a fortnight to be able to report more fully on it. The lode and country near the same are quite green, wherever the water has passed through. It is my opinion that we are near a large deposit of ore on that lode. The timber pitches in general are improved. The engine, pitwork, and all our machinery are in good working order, and things in general more encouraging.

From North Tamar Mine, the agent reports that the bottom of the 18

has been cleared up, and that when the lode is further developed, the oldest miners would be willing to stop the banks for one-half tribute. The A and B lodes are disturbed by an iron course, but present a good appearance, with lead and copper. The old works at the shaft will not answer for the present heavier pitwork, and it will, therefore, be necessary to cut pincers, and this will be done as speedily as possible.

From South Cudrilla, we learn that on Saturday last the shaft was set to nine men, to sink 20 fms., for 45s. At that depth it is expected the lode will be reached, when ores will be raised for the market, as a good lode for copper ore is passing into this sett from the West Crimble boundary.

The South Devon Mine steadily improves. A box of ore has been received this week, and can be inspected at the office. Some stones of ore from the winze have been found, by analysis, to yield 35% per cent. of copper, and some from the shaft 33% per cent., which promises well for an early discovery of importance.

The Great Wheal Busy is likely to progress with considerable spirit; Mr. M. Williams, M.P., has taken a large holding, also the Messrs. Harveys (of Hayle), and Sandy-Vivian. The re-opening of this mine is of great importance to the locality, as probably upwards of 1000 men will be employed for very many years.

Capt. W. Williams, of Caroline Wheal Prosper Tin Mine, has inspected the Queen of Dart Copper Mine for several of the shareholders.

The Great Howas United Mining Company held their meeting on Thursday, and according to the report, which will be found in another column, it would appear that the shareholders have at last been put in possession of a true state of the accounts, and certainly the difficulties have been of no ordinary nature. Captain J. Webb has been indefatigable in placing the mines in a sound working position, and it is fully expected that they will soon be got into a profitable state. A call of 2s. 6d. per share was unanimously agreed to, which it is expected will be sufficient to cover the existing liabilities, and provide capital sufficient for fully developing the property.

The sets adjoining West Damsel and Grambler and St. Aubyn has been lately obtained, and is considered to be one of the best pieces of productive mineral property in the Redruth and Gwennap districts; it embraces the West Damsel, United Mines, and Wh. Clifford lodes, and is to the north-east of Wh. Buller, and immediately south of, and parallel with, Grambler and St. Aubyn. There are several large lodes in this sett, some of which have been opened on a little in the back, carrying a beautiful gossan. In the 20, at West Damsel, which is within 50 fms. of the boundary of this sett, they have a splendid lode, composed of gossan and black copper ore. It has been very favourably reported on by Capt. Jennings, of Treasvean and West Seton; Capt. Pope, Wheal Basset; Capt. Dunn, Carr Brae Mines; Capt. Glanville, North Basset; and Capt. Michel, Grambler and St. Aubyn, all of whom are well known as men of the strictest integrity and soundness of judgment. Mr. Charles Bawden, of Tavistock, with a few influential gentlemen of Redruth, are the holders of this property.

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At Rosewarne United,

Notices to Correspondents.

• Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

THE COST-BOOK SYSTEM.—Sir: Your correspondent, "Cost-book," in his reply to "Anti Cost-book," omits a point of great importance in reference to the power of transfers, which I—Does the transfer convey previous responsibility? To illustrate my meaning, I ask permission to cite a case within my knowledge. A, the largest shareholder and a member of committee, shows by a statement presented at a general meeting, that the funds are in so satisfactory a position that no call is required for the next three months, and none is made. A few days previous to the next general meeting A finds that through his act the debts have accumulated for nearly six months, and transfers his shares to B, who, on a call being made and payment demanded, refuses to pay more than his proportion of costs from date of acceptance, as A's statement was a misrepresentation, and a call should be made at the previous meeting to defray the liability then existing. A being applied to, refuses payment as the transfer relieved him from all liability.—K. P.: *Jan. 28.*

DRESSING TIN ORES.—Capt. Hancock, of the Great Polgoon Mine, has invented a new method of dressing tin ores, by which it is expected a saving of one-half, by the present system, will be effected. The patent has not yet been completely secured, but as soon as that is done we shall publish the full particulars. The committee of the Great Polgoon Company contributed towards the expenses of the patent; and in return are to have the use of it free of charge.

THE SLATE TRADE.—A correspondent, writing from Carnarvon, says—"The largest and most profitable slate quarries are worked by private owners. The most extensive are held by Col. Pennant and Mr. Smith, who have sufficient sway over the market to rule its prices. Hence the steady rates which have prevailed for a number of years; and it was owing to a wise discretion on their part, when the export demand sprang up from Norway, Sweden, America, and Australia, that prices were not considerably enhanced. Speculators have at various times endeavoured to open the market, and introduce those forced fluctuations which generally terminate in a panic, but have been unable to effect their object, because Messrs. Pennant and Smith have set their faces against the system, as they consider they are receiving remunerative prices for their slates; and, as the supply is not equal to the demand, they, being the largest producers, can keep the standard of price at a fair average."

DUSTON IRON ORE COMPANY.—Sir: Why do not the directors call the shareholders together, and at once wind-up this unfortunate affair? Every day they continue it they are only making bad matters worse. Surely they must be well aware that it is utterly impossible to pay the heavy rent out of making a few bricks, and it would be far more honourable for the directors at once to stop all expenses, as I understand they have not had a single offer for the purchase of their iron ore.—A. Z.: *Northampton, Jan. 30.*

SIR.—In reply to the enquiry of "H. H." (Jan. 14), Mr. Stagg's address is, Lead Company, Weardale, Durham; and further, his patent for condensing smoke containing metallic substances is not, I believe, in much use. But Mr. James Stokoe has a patented method for that purpose, which is very much approved of, and is widely adopted; his address is Newton, near Hexham.—B. T.: *Jan. 26.*

CLARA MINE.—Sir: I was much pleased, when perusing your valuable and interesting Journal of last week, to find that a meeting of the Clara Mine adventurers had taken place. I beg to state that I attended one on a former occasion, but regretted to find that there were not sufficient shareholders present to carry out such ideas as were then and then proposed by our managing agent and co-adventurer, Capt. Treveghan. I felt very much indebted to that gentleman for the candid manner in which he gave his opinion of the concern, from which I concluded that we had been neglecting a valuable piece of property, being, as he stated, in the centre of the best mining district in the county of Cardigan, and within a mile of the Cefn Cwm Brynwyd Lead Mine, where, from the flattering indications, and the large returns, high hopes are entertained of a great and lasting concern. Therefore, knowing a little of mining myself, and finding riches so close to our door, I say we are not honest John Bulls, nor doing justice to our wives and families, if we do not pursue a course that will pay us a hundredfold for our small outlay; and as a single individual, I will come forth with my portion, let it be what it may, providing it be judiciously laid out, as it has hitherto been, and pay with pleasure on the interest I hold—one-twentieth, or 200 shares.—A WELL-WISHER TO MINING: *Jan. 31.*

DRESSING TIN ORES.—Sir: Will "A. T." (St. Austell), or any other correspondent, have the goodness to say where the patented machine of Brunton's, for dressing tin ores after stamping, can now be seen in operation? And he would further oblige by his opinion why the machine has not been generally adopted.—W. J.: *Jan. 28.*

DEVON UNITED.—Sir: Permit me to state that this mine has not been suspended in consequence of the shareholders being unable to raise 190*l.*, as mentioned by a correspondent, but because an appeal has been made to the Stannary Court, as the late secretary (Mr. Fuller) refuses to render a statement of accounts, and parties are threatened with suits on bills, in payment of which the company holds stamped receipts, alleged to be forgeries.—A SHAREHOLDER: *Feb. 2.*

BRITISH MINES AS AN INVESTMENT.—Sir: The notice of South Crinnis, under this head, in your last week's Journal, is substantially correct as to the past, but certainly does not convey a correct idea of the present state and prospects. There is not only a good lode in the adit level and in the 20, but another large and valuable lode in the 35. These lodes have been extended several fathoms, and I leave the backs to tell their own tale in the future ticketing lists.—FAT JUSTITIA: *Jan. 28.*

"J. H." (Newport).—The boiling of liquor and worts by steam is practised in London breweries; the system has all the advantages of the ordinary furnace, without many of its inconveniences. The regulating and the withdrawing of the heats obtained by steaming is under complete control. We should advise your applying to Mr. R. Davison, C.E., London-street, London.

WEST BASSET MINE.—Sir: In your last Journal there is a report of the meeting of shareholders in this company, and by the accounts it would appear there was a dividend in favour of the mine of 3740*l.*, less dues, owing and payable on demand, 519*l.* 8*s.*; leaving the sum of 3220*l.* 12*s.* for dividend purposes. A dividend of 12*s.* 6*d.* was declared, requiring 3730*l.* to pay, and showing a deficiency of 529*l.* 8*s.* to be supplied by loan. No mention is made of the liability (519*l.* 8*s.*) upon the balance (3740*l.*) The omission of such an important fact being likely to mislead, the writer trusts you will give it insertion in your next Journal. As the competency of a meeting of shareholders in a mining adventure, conducted on the Cost-book Principle, to appropriate future profits is a question which of late has elicited much difference of opinion, your experienced and able correspondent, "Junius," would probably be willing to enlighten the mining interest upon this subject.—A SHAREHOLDER IN WEST BASSET: *London, Jan. 24.*

LEAD ORES.—In the quarterly return, published in last Journal, the sales from WHEAL TRELLAWYNT were wrongly stated: they should have been—Oct. 13, 100 tons, 179*l.* 15*s.*; Nov. 9, 64 tons, 1452*l.* 16*s.*; and Dec. 8, 61 tons, 1390*l.* 12*s.* = 225 tons, and 463*l.* 7*s.* in money.

GOLD-BEARING QUARTZ.—Sir: Your correspondent, Mr. Hopkins, in treating of Mattoato, is "labouring under great misconception regarding the subject," when he states that 50 per cent. of gold is not lost in the South American treatment of gold quartz; likewise, when he tells us there are no remains, but the whole bulk is finally consumed; and also when he recommends the concentration of gold quartz. In many parts of South America, where gold has been extracted from quartz for several generations, large heaps of refuse have accumulated, and uncle, which is often the case, rivers have swept them away, there remain as gigantic proofs of unconsumed remains, and often less than 60 per cent. of the original gold. Auriferous pyrites (not gold quartz) can be decomposed by atmospheric exposure, after a year, until all the substance is either wasted or reduced away, but by so tedious and lengthened a process the quantity of gold lost would be difficult to ascertain. I can see no object to be gained in the concentration of gold quartz, for the mass of quartz rejected will contain gold as well as the mass concentrated, and the greater the mass rejected the greater the loss of gold. I have been an eye witness in South America to the operations of some stupid, blundering mine managers, who concentrated the auriferous pyrites from the auriferous quartz, and threw away the valuable quartz, simply because they did not know how to treat it.—JOHN CALVERT: *139, Strand, Feb. 1.*

AGUA FRIA GOLD COMPANY.—Sir: A resolution was passed at the last general meeting of this company, empowering the directors to raise additional capital. The property was then jeopardised by the impatience of the creditors, who were hourly expected to seize it. As a shareholder who takes an interest in the prospects of this company, not so much in a pecuniary as a commercial point of view, I should be glad to know what amount of success the directors have met with, and whether their fears of seizure have or have not been verified?—T. W. C.: *City, Jan. 29.*

"W. H."—The quotation was, in error, inserted against West Wheal Seton instead of Wheal Seton. For the latter mine 22*l.* would have been correct. The present price of West Seton is from 350*l.* to 360*l.* per share.

BEST SYSTEM OF CRUSHING.—Sir: Does Mr. E. Hopkins include, in his remarks upon rollers, the kind of rollers commonly known as edge runners? If he does, can he name a single instance where a properly constructed mill working in water with edge rollers, or runners, has been tried against stamps on any tin mine in this country? If he cannot, his statements are of no weight, and the Cornish agents generally have too much good sense to condemn what they have never tried, and are, consequently, unable to appreciate.—JOHN WESTLAKE: *Helston, Jan. 28.*

CUBERT UNITED MINES.—"A. Z." (City).—The offices of this company are removed to Mr. Foulkes, 35, Old Broad-street. If our correspondent will send us notice of the next meeting, one of our reporters will attend. It is the duty of shareholders to insist upon the meeting being public, and not allow the committee to prevent the attendance of the representatives of the press. It has been proved that there is scarcely an instance where such a course is pursued but what the committee have some unworthy end in view.

MOSLER'S MINING COMPANY.—Sir: Can any of your readers inform me where the offices of this company are, or where the secretary is to be found? I am an unfortunate shareholder, and am anxious to know whether the directors mean to pursue the undertaking or abandon it. The least they can do is to let us know where they are to be found.—A. C. F.: *City, Jan. 30.*

LAS INFANTAS MINING COMPANY.—Sir: The directors of this company have expended something like 14,000*l.* in the undertaking, 6000*l.* of which has been absorbed in trying the mines, and they are now bringing the affairs to an inglorious termination, by paying to the proprietors some unknown sum, which is so much a secret that it is not to be revealed. They asked for 40*l.* per cent., but would not say what it was for, but assure us we may rest satisfied all our troubles are at an end. We are to give up our property, such as it is, and conciliate M. de la Grange by paying him a something which he is too modest to have divulged to the world. What is the meaning of all this? Are the negotiations of such a character that they will not bear to be mentioned, lest they might disturb the equanimity of certain gentlemen? or do the directors think we are blindly to pay our money to rid ourselves of a mine, the capabilities of which are an open question? Whatever their motives, and I do not for a moment doubt they are good, I must say it appears to me an arrangement capable of improvement. A great deal of money has been spent, and the returns for it prove that there has been mismanagement somewhere. If the directors intended to abandon the adventure, I think they might have done so without bearing an inglorious retreat. They are men of experience, and I expected better things from them. In these latter days of ours, what Carlyle would call persistency, would be a virtue much to be desired.—QUESTOR.

SUBSCRIBERS IN AMERICA.—Our friends in America are informed that they can obtain the *Mining Journal* by ordering it from a bookseller in any of the principal towns in the United States. Mr. Trübner, of Paternoster-row, is the London agent, and sends parcels by every mail to the principal booksellers and newsagents on the other side of the Atlantic.

CORNISH ENGINEERING.—Sir: The word "anonymous" is, it appears, from the Greek, and signifies literally without name; also a person whose name is unknown, or who keeps his name a secret. Your correspondent, "A Cornishman," is one of this class. What amount of credit he is likely to attain at a paper war, fighting under such colours, and like our enemies, the Russians, behind walls so anonymously constructed, as leave him to decide. If he were to come boldly forward, without fear or shame, and allow the world to know who or what he is, it could only have a much better appearance, however ignorant he may be of steam power. His statement respecting the combined engine, &c., viz., that it has been found a failure, and its use discontinued, is in keeping with his account of the wonderful performance of his short stroke high-pressure non-condensing engine. He may find on enquiry that they are not only in use in many mines in Cornwall, but also for supplying water to important towns, such as Lincoln, Lewes, and Coventry, and also for a variety of purposes in England, and elsewhere, many of which have been erected by other engineers, who have, therefore, shared in this greatest of British achievements. Redruth, Jan. 29.

TO THE SHAREHOLDERS OF THE SCOTTISH AUSTRALIAN INVESTMENT COMPANY.—GENTLEMEN: Pray bear in mind that yesterday, at the meeting, no explanation was given (to the three-repeated request for it) as to the charge of 923*l.* 12*s.* 10*d.* for resitting and drawing 33,000*l.*! You ought to have it yet.—M. Feb. 1.

"S. S." (Tavistock) should furnish the particulars of the charge of 29—30, with the other matters referred to, that the transaction may be better understood.

WHEAL EMMA (Buckfastleigh).—Sir: Permit me, through the medium of your *Journal* (circulating as it does throughout the mining world), to correct the error into which many persons have fallen—that the Wheal Emma which sampled 164 tons on the 17th inst., was a part of the Great Devon Consols, instead of being the Wheal Emma recently opened near Buckfastleigh.—A SHAREHOLDER: *Jan. 31.*

NORTH HINGSTON.—Sir: Your correspondent in last week's *Journal* does not appear to have understood the North Hingston accounts, to which he refers—from July to October, 1855. The correct amount of costs is 116*l.* 5*s.* 2*d.*, which will be entirely cleared off when the assets—the calls, and proceeds of forfeited shares—are turned into cash, and also leave 33*l.* 14*s.* 4*d.* balance in hand. The 4*l.* 19*s.* 5*d.* is included in the 116*l.* 5*s.* 2*d.*; and, since the meeting referred to, several calls have been received, and also 21*l.* 3*s.*, the proceeds of the forfeited shares, and a great part of the 116*l.* 5*s.* 2*d.* has been paid off. The meeting was adjourned from Dec. 19, consequently nothing more than the October cost could be charged, as there was no work done in Nov., and, of course, the Dec. month was still current.—A SHAREHOLDER.

weak hand. Sown broad-cast, they are about being reaped and garnered; and were any indication requisite for those who, prudently speculative, scrutinise, mark, and measure their ground previous to commencing operations, the point indicated would be the new mining districts of Devon and Cornwall. However, facts are stubborn things, and will assert their own position; while, to be sceptical as to the successful issue of mining in our partially worked districts, would be reasoning against reason, and passing as naught those stratal characters upon which the immense wealth of our old mineral divisions has been founded.

If legitimately conducted, mining enterprise then can seldom involve the adventurer in that ruin which the alarmists paint and shadow forth. There may be instances where the gnomic genius deceives, but such constitute the exception; and even those, when prudence lifts her lamp, become few and faint, and are scarcely to be apprehended by the common-sense portion of the public. The position of any really valuable industry in this commercial country has only to be fairly charted and defined, in order to be fairly appreciated: and it, therefore, in a great measure, remains with the mining body to command success. Nor is this remark to be taken as in the slightest way expressing a doubt of their matter-of-fact business determination to achieve this desideratum. Already have they given ample proofs that they have girded themselves for the good fight; nor are they unrecognised in the increasing confidence of the moneyed interest, nor unrequited in the remunerative success of mining operations.

In the total *increase* of copper ores vended in 1855, over the preceding year, an augmentation of product, to the value of 66,963*l.* 5*s.* 6*d.*, is a satisfactory proof there is no lack of yield to labour on an improved principle. Cornwall alone shows in her sale of ores, as compared with 1854, an increase of 7691 tons, representing 70,595*l.* 17*s.* 1*d.*; and the total estimated value of the copper, tin, lead, and silver ores, raised in the United Kingdom in the year 1855, during a period of war, restricted markets, the very morbidity of moneyed caution, and an irrational distrust of mining, reaching at the *minimum* the startling standard of 3,500,000*l.*; as an old miner expressed himself, "fairly banks the mining interest of England."

It would be unjust to the young enterprise of our mineral districts to pass unnoticed the considerable accession of *first*-paying dividend mines which has recently accrued to the dividend list, and equally so not to allude to the great *rise*—a rise originating not in market fineness, or intrigue, but in the improved character of the mines themselves, which took place within the year in certain shares, the quotations in some stock having ranged from 100*l.* to 320*l.*; from 4*l.* to 9*l.* 10*s.*; from 230*l.* to 620*l.*, &c.; and in this can be perceived the growing tendency of speculation—a healthy action promoted by that confidence which well-regulated and systematised labour never fails to create.

Having traced the way through these interesting and important facts to this conclusion, the question now suggests itself—whether any other reproductive enterprise can supply to the capitalist superior, or even equal, advantages? We answer, No; and rest the negative on grounds so apparent and so known, that in the mere comparative comparison, the necessity for further discussion ceases. Observe your investment in landed property itself, the agricultural interest obtains, generally, but 3*l.*, and rarely, very rarely, 5 per cent., and the adversities it is subject to need not now be pointed out; unfortunately, in too many instances they have been perversely self-induced, and many will, no doubt, be perpetuated in the same spirit. In the ordinary commercial sphere, certainly some, nay many, lucky hits are made, but 10 to 15 per cent., as a maximum, is considered a good return, and this under circumstances of great risk in material, and extensive competition in trade.

Those occurrences of "good luck," those materialisations of golden hope which attend the progress of mining are never thought of. Anticipations such as these never cheer in toil, or lull to repose, and to the acquisition of tact and the force of capital alone must the purely commercial man be indebted for his success. Whirled even in the vortex of a restless and rapidly competing power, it is only by the force of the most favouring circumstances that he can control the action of, and escape the gurgitating current which would otherwise engulf him.

The events, again, which in the political world crowd upon us, whether they lead to a continuation of the war or result in peace, will tend to the advantage of the mining community; and their labours, thus enhanced, should still more stimulate exertion. The query may be put, How shall this come to pass? An answer could be supplied from many sources, but the most proximate is that as in time of war a large demand has been made on the mineral resources of every country in Europe, and its inert stock, as is really the case, has been consumed, afield and afloat, without any existing labour, comparatively speaking, having been employed in the mineral reproduction, so, if peace be restored, the commercial requirements incident to an extension of old manufactures, there being no reserve of metal to fall back upon, must, and assuredly will, create a draft on our mine products which it will be wise to anticipate, and therein will "adventure" prosper to an extent unequalled by its most flourishing antecedents. The British public, if it now tarry on the way, may yet have a cause to regret its inactivity in fostering its mining industry analogous to that which it is now being forced to feel for neglecting the propagation of cotton in our possessions. England is the consumer, with a still increasing demand, of 44,000 bales weekly, making a yearly aggregate of 915,200,000 lbs. of this article, and for such amount, or the greatest part thereof, we have to pay in hard cash to America; and all this because habit on the one hand, and prejudice with stolid ignorance on the other, combined to throw a cold shade over the long-known capabilities of our colonies.

The same sort of infatuation appears to have induced a neglect of mining; but, fortunately, its brilliant successes, even under the most oppressive disadvantages, are now dissipating the vapours, and, consequently, people will see their way better by-and-bye, and "toddle along in wiser gait" for the future.

The recurrence to colonial produce brings to mind the favourable accounts from Australia. Gold-prospecting has been eminently successful, and with the consequently increased supply of the precious metal have arisen those speculative hopes that, but a short time since, furled their wings with an abruptness which brought them down to earth matters of fact, rather ungracefully; but people soon forgot gloom in the sunshine, and thus cheered by the aspect of affairs, the energies of all are in full life and active exercise. All doubt as to the endurance of the auriferous deposit seems now totally banished. The export of the precious metal during ten months of the past year amounted to over 2,000,000 ozs., with every prospect of an increase. In fine, there is no cessation of development; the surface diggings at "Fiery Creek" continue to yield abundantly; and a gold quartz vein discovered near Geelong, and reported to be more ordinary rich, has, no doubt, caused a "rush," and is by this time picked and delved to some purpose. Altogether, the social position of this important colony is improved, and while rejoicing we record its growing prosperity, we may venture the hope that the adverse experience it has had of recklessness in commerce, will indicate to it a steadier use of the beam and balance for the future.

A broad as at home, then, mining is on the ascendant. Here, as in the central sphere, ought to be preserved a scientific and strict organisation, so that while deriving benefit therefrom we may be able to teach by example, and in thus teaching to afford aid which can best secure the interests of all. If in our onward progress we are but true to ourselves, there is required but a common sense converse with the *verum divinandum* *notitia* to foretell that the natural results which Providence has wisely decreed to practical prudence and industrious perseverance will crown our efforts, and prejudice, however strong, shall not prevail against us.

The COLOGNE MINING COMPANY held the adjourned meeting on Wednesday, for the purpose of communicating to the shareholders how far the plan had succeeded for raising the additional capital required (9000*l.*), by the issue of preference shares. The result, as was anticipated, proved a failure, only 37 members having subscribed for 1006 shares, independent of those taken conditionally by the members of the council. It will be seen by the report of the proceedings, which is inserted in another column, that Col. CURTIS has been most active in protecting the shareholders, by placing the company in a proper legal position, under the Prussian law, as it would really appear that it could not be carried on in that country as a *société en commandite*. The Prussian mining law seems worthy of consideration, if any attempt should be made to improve our Cost-book System; as, although it assimilates to it in many cases, it is far preferable. No merchant who has ever given credit can harass a shareholder by attempting to recover from him, perhaps, as many pounds as he is indebted shillings, in the shape of calls, and before any party is liable for any credit given to the mines, he must agree at a public meeting, and sign his consent, to the goods being so supplied, the non-payment of calls merely subjecting his shares to forfeiture.

The spirit in which the resolutions are framed will, no doubt, aid in

despatching the business of the company.

carried, and, in the year 1855, some curious facts present themselves. Although the necessities, as well as the excitement of the war, has called the attention of many minds engaged in mechanical pursuits to alterations and improvements in fire-arms, and other weapons of offence and defence, it is evident that the greater portion of such talent has been devoted to forward the arts of peace and the progress of civilisation. While we have 68 patents for fire-arms, 41 for improvements in gun carriages, and 11 for gunpowder and other explosive compounds, there are no less than 73 for steam-engines, 52 for boilers for steam-engines, 71 for improvements in the construction of railways and locomotives, 53 for marine engines for screw and paddle-wheel propellers, and 77 for arrangements for consuming or preventing smoke in all descriptions of furnaces. The inventions and improvements relative to textile manufactures have been exceedingly numerous, as also have been those of looms, and machinery for producing them. In sanitary affairs we find 21 patents for soap, 33 for taps and water conveyances, and 34 for pipes, tiles, and bricks. Then we have for paper and pasteboard 38 patents, for writing instruments 36, and for lithography 46; sewing machines have been specified to the number of 21, and novel arrangements of motive-power, or that to be obtained from new sources 54; among which we regret to find, as an indication of a sad amount of mechanical ignorance still existing among us, several of them are for *perpetual motion*. Among those more particularly connected with the mineral interests of the kingdom, we have 28 patents in the manufacture of iron; coating metals, 25; reducing ores, 12; foundry operations, 10; rolling metals, 3; steel manufacture, 5; gold, silver, zinc, brass, alloys, &c., 5; sawing, planing, and boring metals, &c., 44; punching, stamping, &c., 20; and in chains, nails, screws, bolts, files, and numerous other metal manufactures, including blowing-machines and blast-furnace arrangements, we have nearly 120 patents. These facts are of a highly interesting character, showing that while Britons can stand up in a just cause for the defence of truth and right, they can also devote themselves, heart and purse, to the advancement of science and art.

Mr. H. READER LACK, of the Statistical Department of the Board of Trade, is worthily following his lamented predecessor, Mr. G. R. PORTER, in rendering valuable contributions to statistical science. We have received an interesting paper on "The Mining Resources of France from 1841 to 1852;" and, though most of the particulars are familiar to our readers from the information furnished by our Paris Correspondent, there are some details which will give an approximate view of the mineral wealth of France, and its increase, which are worth quoting, as evidence of the great progress made by the mining industry of France during the period referred to. Although the production of the French mines is, at present, chiefly confined to coal and iron, the country is not wanting in metalliferous deposits, for, both under the dominion of the Romans, and still later of the feudal lords, mines of various kinds appear to have been worked on an extensive scale, and their abandonment in the year 1793 was mainly owing to the then unsettled state of the country. The working of the coal mines in France to any great extent did not commence till after that date, and their production was comparatively trifling before the year 1800. Since the year 1832, however, great attention has been paid to mining operations, while a considerable increase in the production of copper, silver, and lead, in addition to that of coal and iron, has taken place since the year 1841; and it may be some guide towards forming a notion of the extent of the production of coal and iron in France, to know that that of coal is about sixteen times, and that of iron four times, less than the production of those minerals in Great Britain. The production of coal, lignite, and anthracite, was, in 1841, of the value of 33,159,044 frs.; in 1852, 46,751,806 frs. Iron and steel, in 1841, 141,789,560 frs., and in 1852 it had increased to 297,330,748 frs. Silver and lead, in 1841, 774,033 frs., and in 1852, 2,390,191 frs. In 1841, the copper produced was of the value of 278,676 frs., which in 1852 realised 5,167,338 frs. The coal trade of France has made rapid progress since 1800; in 1841 the produce amounted to 3,410,210 tons, and in 1852 to 4,816,355 tons, while the consumption amounted to 4,980,000 tons, and 7,816,403 tons respectively; the difference, of course, being coal imported from England and Belgium. With respect to the iron trade of France, Mr. BLACKWELL has recently contributed such elaborate information, that precludes the necessity of going into these figures; or, indeed, those of the other continental states

It has ever been a feature in the progress of the community of this great mechanical and commercial country that no depressing circumstances connected with politics or finance have ever been able to retard or prevent the extension of national institutions calculated to advance the physical, moral, or educational welfare of the people. Notwithstanding the large increase in our taxes, rendered necessary for the conduct of a just war of civilization against barbarism, a plan for a proposed COLLEGE OF PRACTICAL MINING AND MANUFACTURING SCIENCE, at Newcastle-upon-Tyne, noticed by us some time since, is likely to be carried out; and, in the preliminaries of which His Grace the DUKE OF NORTHUMBERLAND has offered the most munificent assistance. The committee appointed to carry out the details at a recent meeting had laid before them a copy of a communication addressed to the DUKE on the subject, by Mr. NICHOLAS WOOD, the Chairman, and His Grace's reply. The former called the attention of the DUKE to the project, requesting his favourable consideration, showed the want of an institution of this practical character in the district, stated it was expected Government would aid in the design, and requested His Grace would confer additional benefit on the undertaking by kindly consenting to become patron of the college. This communication received prompt attention, Mr. Wood receiving a reply through Mr. HUGH TAYLOR, the DUKE's agent, stating that His Grace had for some time been aware of the intention to found the college, and was of opinion that, if properly established and conducted, it was calculated to prove highly advantageous to the mining interests of that part of the country, as well as to those of the kingdom at large, and the project had his entire and hearty concurrence. The DUKE was aware, from experience, that the permanency of such institutions greatly depends upon the endowment being adequate to carry them properly forward; and entertaining such views, offered, in case 15,000/- was subscribed, to contribute 5000/-, making 20,000/-; and, if 30,000/- were raised, he would subscribe 10,000, making 40,000/-, for a like purpose. The DUKE also accepted the honour of being named patron of the institution. As regards the particular locality for its erection, or the expediency, or otherwise, of appending it to, or connecting it with, any existing establishment, the DUKE recommended that such subjects should receive most mature and dispassionate consideration, as the success and permanency of the college may greatly depend upon the decision.

It was then resolved, that the Chairman be requested to convey to the DUKE the respectful and grateful acknowledgements of the committee for this munificent offer on the part of His Grace, and to express at the same time to His Grace their full persuasion that the conditions on which the offer is based are, as regards the proposed institution, most beneficial, and such as must ensure the cordial approbation of every friend to the undertaking; and that the committee will have the honour of further soliciting His Grace's advice and assistance in reference to that part of the subject which is more particularly noticed in the concluding paragraph of His Grace's communication; and that the foregoing letters be printed, and copies sent to the MARCHIONESS OF LONDONDERRY, the EARL OF DURHAM, LORD RAVENSWORTH, and the other coalowners of the district, accompanied by a letter, soliciting their support to the proposed undertaking.

Memorials to her MAJESTY'S Government, the Bishop and Dean and Chapter of Durham, the Corporation of Newcastle, and other public bodies, were also adopted; and the proceedings terminated with a vote of thanks to the Chairman.

In connection with the establishment of this college, we may call attention to another most liberal offer on the part of Mr. ROBERT STEPHENSON, the eminent engineer. We some time since noticed the fact that the Literary and Philosophical Society of Newcastle was, unfortunately, in debt to the extent of 6200/-, and that Mr. STEPHENSON offered to pay one half of this, provided the other members would find means to pay the other

half, and reduce the term of admission to one guinea per annum. The committee have obtained subscriptions to nearly the required amount; and at the annual meeting, to be held early next month, it is believed they will be in a condition to accept Mr. STEPHENSON's offer. Their library is one of the most valuable and extensive in the north of England; the building was erected in 1825, and now contains about 25,000 volumes, having been from time to time enriched by many valuable presents.

We congratulate all parties interested in the indications which now present themselves of unequivocal success in the establishment of the college, and of a more promising future in the progress of the Literary and Philosophical Society.

STATISTICAL STATEMENTS ON SPELTER.

	STOCKS.	Jan. 1, 1853.	Jan. 1, 1854.	Jan. 1, 1855.	Jan. 1, 1856.
Breslau	Tons 2,000	2,000	1,500	500	
Hamburg	6,500	6,000	4,500	3,500	
Stettin	1,000	1,000	1,000	400	
London	11,500	11,000	8,500	4,000	
Rouen	1,500	1,000	1,000	500	
Gleiwitz and Silesia	1,500	1,500	1,000	500	
Total tons	24,000	22,500	17,500	9,400	

PRODUCTION.

	1853.	1854.	1855.
Vieille Montagne	Tons 17,000	17,500	18,000
Corporale and Nouvelle Montagne	4,800	5,000	4,800
Stolberg, and sundries	3,800	5,000	5,400
Silesia	30,000	28,000	27,700
England	2,000	1,500	1,500
Poland	4,000	3,000	2,000
America	—	1,500	1,500
Total tons	61,600	61,500	60,905
Total of stocks and production	85,600	84,000	78,495

CONSUMPTION.

	1853.	1854.	1855.
France	Tons 20,000	24,500	27,000
England	12,000	17,000	16,115
America	7,000	8,000	9,650
Belgium and Holland	4,500	4,100	3,750
Germany	10,000	9,500	9,200
Sweden and Denmark	4,000	3,100	1,250
Russia*	—	—	—
India and China	5,000	1,000	1,300
Total tons	62,500	67,200	68,265
Stock remaining	22,500	17,500	9,400
Total	85,600	84,700	77,665

* No document for Russia.

It will be observed from these statistical statements that the general consumption of spelter, under all forms, has been constantly on the increase for the last three years, whereas production has remained nearly stationary. Hence the gradual decrease of the floating stock, and the corresponding increase of average price during these three years upon each market. It is probable that the floating stock, on January 1, 1856, will be totally absorbed by the consumption of the year.

TIN IN PORTUGAL.

In addition to the Copper Ores which have been recently shipped to this country from the Douro, Portugal also produces Lead, and a certain amount of Tin. The principal mines yet discovered are situated in the micaaceous shales of the Plas-oz-Montes, where the oxide of tin is invariably associated with quartz. The shales in this district are everywhere interfoliated with hard white quartz, which sometimes occurs in bands of considerable thickness; whilst, in other cases, they are extremely thin, although still following the run of the strata in which they occur.

In addition to these beds of quartz, true veins, running from north to south, and traversing the shales nearly at right angles to their strike, have also been discovered. These veins, wherever they have been laid open, have yielded oxide of tin, in the form of exceedingly large and pure crystals. Besides the ore thus occurring in regular veins, it has also been found in the quartz lying between the laminae of the strata. This has been more generally observed at their point of intersection by true veins than in other situations.

The workings of these mines, as at present conducted, are rude in the extreme. The only excavations made consist of a few open cuttings of very limited extent; whilst the ores obtained are first hand-picked, then broken down by a hammer on an iron plate, and subsequently washed with a scoop in a kind of wooden trough. The tin ore thus prepared is afterwards melted in a blast furnace of the size of an ordinary chimney-pot, supplied with air by means of a smith's bellows, and fed with charcoal made from the roots of the dwarf shrubs with which the neighbourhood abounds. The tin thus obtained is run into bars, which are chiefly employed in the country.

We are informed that Mr. J. Arthur Phillips, who has recently examined this district, is of opinion that, with a more extensive and systematic method of working, a considerable supply of tin might be obtained from this source. Mr. Phillips also states that the metal thus produced contains neither arsenic nor tungsten, and is in every way equal to the best Cornish tin.

THE COAL TRADE OF AMERICA.

The development of the great coal fields of Pennsylvania is continuously becoming of greater interest, and the returns for the past year are well worthy particular attention, as showing the commercial advances of a rapidly progressing nation. The total production of anthracite, semi-anthracite, and bituminous coal in 1854 was 6,903,498 tons; in 1855 it was 7,587,502 tons, showing an increase of 684,004 tons. If we go as far back as 1822, we find the whole amount of anthracite from the Schuylkill district was only 1480 tons, while in 1855 it had risen to 3,318,555 tons, and the whole quantity transmitted by canal and railway in the 33 years was 28,609,159 tons. In 1820, the aggregate of all kinds of coal raised in the United States was 365 tons, while the returns for 1855 give the quantity as 7,587,502 tons, and a total for 35 years of 61,956,595 tons. Coal has been the principal element which has raised this country to its present high position, and the above figures show that the community of North America are fast progressing in the steps of their English progenitors. The coal fields of that continent are the most extensive yet known in the world, and comparatively inexhaustible; yet, wide as is the area over which they must be transmitted to supply the domestic and manufacturing wants of the population, the railway and canal systems now so extensively carried out will render these treasures available to all. At present the prospects for 1856 are promising; the Schuylkill, Lehigh, Scranton, Wyoming, Wilkesbarre, and Shamokin districts have all additional channels of traffic opened, and will be able to send continuously increasing supplies. In some places the anthracite coal is on the increase, and its qualities are becoming still more and more appreciated; in Baltimore, for instance, the supply of bituminous coal in 1855, as compared with 1854, had fallen off 77,816 tons, while that of anthracite had increased 25,007 tons.

Among the instances of humane and civil progress now being made by our transatlantic brethren, we hear a scheme for the establishment of a MINERS' HOSPITAL in the coal districts of Pennsylvania; this proposal is highly creditable to its promoters, for in districts situated far from towns and villages, where the men employed in collieries can scarcely be said to have a home, arrangements for removing them in case of accident to an asylum where they could be properly cared for and attended to would, indeed, be a great desideratum, and establish that confidence so necessary between employer and employed. As the consumption of coal increases, the men have to work at greater depths, fire-damp is more rife, and a larger number of accidents arise from breakage of ropes and chains, falls of roof, &c. In every mining district in this populous country there are, within easy reach, hospitals and dispensaries which aid in affording ready relief to all who need it; but in the thinly populated localities of the coal districts of Pennsylvania such an establishment would be a boon, and is indeed, a real necessity.

As long since as the winter of 1854 a bill was passed by the State for the incorporation of a Miners' Hospital, but which is open for amendment. It is proposed that colliery proprietors in different parts of the region shall be appointed commissioners; that all coal mines producing over 5000 tons a year shall contribute towards the building and support of such an estab-

lishment; and that by the assistance of the railway companies, and the Schuylkill Navigation Company, to the extent of half a cent. per ton on the amount of coal carried by them, the tax would be really inappreciable. The hospital is proposed to be managed by five trustees, one to be appointed by the Philadelphia and Reading Railway Company, one by the Schuylkill Navigation Company, and three by the Coal Mining Association of the County of Schuylkill. The carriage of coal alone throughout the county is estimated to produce \$18,000 per annum, and thus the building might be at once commenced, and proceed rapidly towards completion, supplying all the requirements of a colliery population, and become a real blessing to humanity. We hope soon to hear that this benevolent project has been carried into effect.

THE METAL TRADES AND INDUSTRIAL PROGRESS ON THE CONTINENT.

[FROM OUR PARIS CORRESPONDENT.]

JAN. 30.—The consistency which the rumours of peace daily acquire continue to augment the value of Government and other stocks. The preparations in the hotel of the Russian embassy for the reception of its long-expected and ardently-desired masters—ardently desired by the *bonne bourgeoisie* of Paris,—the opening of the *salon* of the Hotel Talleyrand, and the resumption by the Russian Church of its sacred fountain, are so many signs of the times, or, rather, prognostics of the prompt conclusion of peace, which shopkeepers and speculators eagerly canvas and thankfully accept. From the tone of the Government, Orleanist, and Royalist press, and of the conversation of gentlemen on 'Change, one would imagine that France had been inveigled into the war against her wishes and interests, and by the machinations of her ally. However, time will show whether it was wiser to evince such anxiety—almost indecent haste—to accept peace, or to hesitate until the common enemy had been reduced to the impossible for future mischief. The future is scarcely thought of, perhaps, by those who are most clamorous for peace, provided the funds go up, and they make good bargains.

In the face of the rise, and the re-appearance of capital upon the markets, the Bank of France will, it is stated, reduce its rate of discount this week, and return to its former system, which will materially contribute to facilitate the next settlement, great to the joy of the *agents de change* and others. The Credit Foncier has at last escaped from the state of stagnation in which it was so long immersed. Other speculations, such as the Docks—which, by-the-bye, should be called bonding warehouses, seeing that no ships enter there—have felt the general influence of peace. Your readers are probably aware that for some time past the affairs of this company (Docks Napoleon) have been in a most unsatisfactory state. A meeting of shareholders was held on the 23d inst., when the balance-sheet was presented, by which it appeared that the liabilities were 27,676,503-13 frs., the actual available assets, 21,177,847-63 frs.—loss, 6,498,655-48 frances. Two propositions were submitted to the shareholders, one to wind up the concern, the other to nominate a commission to carry it on—the latter was accepted almost unanimously. Fox and Henderson are the contractors for the company's works, and have given every satisfaction. One thing is very certain, that if the docks are to succeed as a commercial speculation, the company must reduce its charges, and teach its *employes* to be more civil to customers, and not keep a person dancing some six hours' attendance to get a single case cleared.

The metal market is no exception to the general rule of improvement. In Champagne, rolled iron No. 1 is quoted at 400 frs. to 440 frs. the 1000 kilogrammes; merchant bar, 435 frs. to 440 frs.; cast-iron, rare, stands at last week's prices, 190 frs. the 1000 kilogrammes; cast-iron, of the second melting, 210 frs. The retail market in Paris is heavy, although wholesale buyers are taking Time by the forelock, in anticipation of a rise next spring. Nail iron is eagerly bought up, and at good prices; Nos. 21 to 26, at 660 frs. the 1000 kilogrammes; No. 20, at 680 frs.; No. 19, at 710 frs.; No. 18, at 740 frs.; No. 17, at 800 frs.; No. 16, at 830 frs.; No. 15, at 860; No. 14, at 890 frs.; No. 13, at 920 frs. English sheet-iron ranges from 53 frs. to 55 frs.; ditto, for piping, from 58 frs. to 60 frs.; Ardenne sheet-iron, from 67 frs. to 68 frs. There has been a good deal of grumbling about the different quality of English iron lately sent, especially bar-iron. Scotch pigs vary from 185 to 190 frs. the 1000 kilogrammes. Beaufort pigs, from 230 frs. to 240 frs. Belgian pigs stand nominally at 185 frs., but there are none in the market. French (*élos mortier*) pigs, from 215 to 220 frs., but nothing doing in them. Russian copper varies from 340 frs. to 345 frs. the 100 kilogrammes; English ditto stands at 325 frances.

Lyons. The bridge is to be supported on a centre piece, resting upon three cast-iron piles, to be sunk some 50 feet below low-water mark. This is, I believe, the first time Dr. Potts's system has been employed in France.

THE IRON AND METAL TRADES OF SOUTH STAFFORDSHIRE. [FROM OUR CORRESPONDENT IN BIRMINGHAM.]

JAN. 31.—We have nothing to boast of in connection with the commercial and manufacturing transactions of the past week. The peace problem still keeps us rather in suspense, and the works, unless those engaged on Government orders, have been rather inactive during the last ten days. Sales of iron have been few, and needy holders, as usual, are reported to be offering large discounts; but the chief houses are firm, and will continue so. There will not, however, be any large accumulations of stocks for some time to come, as much will depend on the final result of the forthcoming negotiations, and the satisfactory adjustment of what is considered here the worse than childish American complication about a few savages, of whom we know nothing, and care less. Some of the later advices received here allude with regret to the possibility of an interruption of friendly relations between the two countries, and seem to indicate caution in ordering under existing circumstances. From these causes the Iron Trade rules dull, and the same will apply to the general manufacturing trades of this town and district. At the Hardware houses goods are being offered in larger quantities than usual, and orders eagerly looked after. There is not, however, any reduction worth noticing in the prices of made goods, owing to the continued high prices of the raw material, and none can take place.

In the Hollow Iron Trade of West Bromwich and Wednesbury there has been activity for foreign orders, which are said to be extensive.

The Lock, Hinge, and Fender Trades of Darlaston, and the surrounding district, are dull, owing to the temporary cessation of the building trade, but prices are firm, and likely to remain so.

In the Coal Trade the utmost activity prevails, and orders keep ahead of the powers of supply, large as they now are at some of the works. Prices are, of course, firm, but without any further advance.

In connection with the public meetings, two of interest have been held since my last letter—the annual meeting of the Canal Company, on Friday last, and the other to-day, for the appointment of trade assignees, and proof of debts, under the bankruptcy of Mr. Greene, of the Lichfield Bank. At the former meeting, Sir George Nicholls, G.C.B., in the chair, the report announced a loss during the past year of 12,000*l.*, owing to the intense frost, which impeded the traffic during six weeks, and congratulated the company on the great progress the works lately inaugurated by Lord Ward, at Dudley, was making. Philip Williams, Esq., referring to a remark made by the Chairman, relative to the goods traffic during the frost, observed it was necessary the matter should be put right, so far as railways were concerned. Although railways during severe frost might receive some of the canal traffic, by bringing coal into the market, yet, taking the advantages and disadvantages, it would take a very wise man to show how railways could do any harm to the Birmingham Canal. Let them look, for instance, to the coke which the railways brought down from the north of England, superior to any produced in this district, exclusive of the red ore, limestone, and the different minerals brought into Staffordshire. Although mine owners might suffer for the moment from this competition with a new district, yet, by giving a continuance value to the works and machinery of the district, and thus keeping the iron works in existence, there could be no doubt that the ultimate advantage would more than balance the temporary loss. Any one who saw the immense quantity of minerals transferred from railways to canals at Wolverhampton and Great Bridge, must be satisfied of the advantage which the canal had derived from railways.

In the Court of Bankruptcy to-day, before Mr. Commissioner Balguy, Mr. Greene was in attendance, and the Court was occupied several hours in receiving proofs. Mr. Knight and Mr. Brace, solicitors, presented proofs for upwards of 120,000*l.*, and upon which they proposed Mr. R. Smith, mine agent, of Dudley; Mr. John Cooke, of Longdon, and Mr. J. Smith, of Lichfield, trade assignees. There was no opposition, and the nomination was confirmed. The affairs of the bank, owing to the recent discovery of defalcation by one of the clerks, amounting to 7000*l.*, are not so hopeful as they appeared to be at first, added to which there is another serious drawback talked of. It appears that doubts are now entertained as to the validity of the bankrupt's titles, if he possesses any at all, to the Brownhill and Pelsall Collieries, which are very valuable, and now being worked by the official assignee, by order of the Court, for the benefit of the estate. It is said that the transfer of the mines was never made to the bankrupt, and that they are not now available for the creditors, unless subject to a large payment, which would be equivalent to a new purchase. In his balance-sheet, presented to-day, the collieries are estimated at 25,000*l.*, exclusive of sundry debts to the same, and stock of coal in London and Birmingham estimated at about 6000*l.*; but if the title is disputed, the value of the property, if it is retained, will, of course, be materially depreciated. The Lord Chancellor is freely talked of as the authority likely to settle the question of equity, if one is involved in it, and a prolongation of the proceedings may not unreasonably be expected. In the interim, the mines are being most beneficially worked, at an outlay of wages amounting to 300*l.* per week, and a corresponding supply of superior coal, the greater portion of which is forwarded to the London market, where it is disposed of by Mr. Greene's former agent. The secured creditors' claims on the bankrupt's estate amount to 43,682*l.* 12s. 1d., and amongst them are the names of some well-known persons in the coal trade. The estimated value of the other securities stand at 51,000*l.* The total liabilities of the bank are heavy, but not yet fully ascertained. It was remarked in Court as singular, that not one tender made to-day was disputed.

IRON AND COAL TRADES OF YORKSHIRE AND DERBYSHIRE. [FROM OUR CORRESPONDENT IN CHESTERFIELD.]

JAN. 31.—The Iron Trade continues, considering the season of the year, in a state of healthful activity, and the demand for manufactured iron has increased, arising from the additional orders received this week from America and the continent of Europe. Now that an early declaration of peace seems probable, it is the opinion of many that the demand for iron will be considerably reduced. No doubt many houses largely engaged in the manufacture of war materiel, such as the Low Moor Company, would for a time be less actively employed, but the probability is that the opening of the Baltic ports, and the stimulus which a peace would give to enterprise, and the extension of our industrial arts, would more than counter-balance any temporary digression occasioned by the cessation of the preparations for war. Advices by the last mail, respecting the iron trade in America, are highly favourable; but the political intelligence from the States wears a threatening aspect, and likely to lead to a severance of our commercial relations with that country. Should such a state of things actually take place, we shall experience very great depression in the steel and cutlery trades, America being a very large purchaser of cutlery.

Soon after the dispatch of our last communication, we received intelligence from several sources of the inactivity of the Coal Trade in Derbyshire, which continues at the present time. All the southern markets are well supplied, and several quite overstocked; as a consequence of this dulness, prices have been reduced, both in London and the country. A large amount of activity usually prevails in the coal trade at this season of the year, and the present depression can only be accounted for by the enormous increase which has been going on in the production of coal for the last few years, and the great facilities offered by the railway companies for its speedy transit to all the markets of the kingdom.

We may remark, in reply to the enquiry from a correspondent at Sheffield, respecting the Midland Mining Company, that the prospects of this company are not at all encouraging, but, on the contrary, we should not be surprised to hear of their affairs being wound-up. It must be understood, however, that there are two mining companies at Ashover, and frequently both are denominated the Midland Mining Company. This is not the fact. The Midland Company are proprietors of the Victoria Mine; and the gentlemen who belong to the other mine are denominated the Mill Town Mining Company. The latter mine is, we are given to understand, in a prosperous condition, and likely soon to yield returns. The history of the Midland Mining Company's mine at Ashover is a curious one, if we are to believe the statements furnished as actual facts. It is said that a nugget of ore, weighing 18 stone, was brought from one of the mines at Eyam, toppled down the Victoria Mine at Ashover, brought up again, and afterwards exhibited in the shop of a tradesman at Chesterfield, as the actual produce of the mine. That such a piece of ore was exhibited is certain; but it is very doubtful whether it really was the

produce of the mine, as none like it has ever been found since. The effect of this was that the shares, 1*l.* each, rose to a premium of between 6*s.* and 7*s.* per share. We understand the same piece of ore was afterwards taken to Mansfield, for the same purpose. It is the commission of such dishonest acts as these that brings legitimate mining into disrepute. We hope, however, that the circumstance we have related is not true, for the sake of the honour and credit of the parties concerned.

STOCK, MINING, AND RAILWAY SHARES IN IRELAND. [FROM OUR CORRESPONDENT IN DUBLIN.]

JAN. 31.—The Stock Market was very steady during the past week, and a considerable business was done; and, notwithstanding lower prices for the last few days, in sympathy with London quotations, the market is preserved in firmness. In shares also business was more active, and in several instances there was a smart advance. Mining Shares were much better, and Wicklow Copper shares were done to-day at 2*s.* over the last price. In Railways, the demand was active, and leading lines fetched higher prices; Belfast Junction shares brought 1*l.* more; Great Southern and Western, 5*s.*; Midland Great Western, 10*s.*; and Waterford and Limerick, 17*s.* 6*d.* more. Other shares without alteration. The half-yearly meeting of the Great Southern Railway will be held on 23d Feb., and that of the Dublin and Wicklow on the 25th Feb. The following are the latest quotations:—Consols, 91*s.*; New 3 per Cents., 91*s.*; Hibernian Bank, 32*s.*; National Bank, 32*s.*; Royal Bank, 20*s.*; Grand Canal Company, 39*s.*; Patriotic Insurance, 8*s.*; Consumers' Gas, 8*s.*; Mining Company of Ireland, ex div., 14*s.*; Wicklow Copper, 30*s.*; Royal Hibernian, 3*s.*; Belfast and Ballymena Railway, 46*s.*; Belfast Junction, 4*s.*; Dublin and Wicklow, 5*s.*; Great Southern and Western, 52*s.*; Irish South Eastern, 5*s.*; Kilkenny Junction, 7*s.*; Midland Great Western, 50*s.*; Waterford and Limerick, 23*s.*

The General Mining Company shipped about 50 tons of very rich ore this week, the lead assaying 44 ozs. of silver; and, if the weather permits, they expect to have another cargo ready shortly.

Professor Cameron delivered, last evening, the first of a course of lectures on the Metalloids, to a numerous and respectable audience, in the new lecture hall of the Dublin Chemical Society; this society, the usefulness of which I have frequently drawn attention to, is daily getting an accession of members, and has removed to larger and more commodious premises than it formerly had. The society intend forming a Museum of Practical Geology, and the members will have abundant opportunity of studying this science in all its branches, devoting particular attention to the assaying of ores, in order the more effectually to study the mineral character of Ireland.

I must preface any further observations on the General Mining Company by referring to my last, where I stated that Garryard West is held for 17 years, at 1-20th dues. I now find this to be incorrect, the company having purchased the royalty in this property.

I take up the further consideration of my subject with reference to this company with pleasure, because I can now deal with facts which tell for themselves, and which show that this company has been most successful in its operations; and from these facts, and from the opinions now entertained of the value of the mines, a good idea may be formed of the prospects of this company, when it is again placed in a condition to expend the capital necessary to be laid out before a profitable result can be obtained. Up to the middle of 1853—that is, during seven years' working—there were continual profits, and dividends were paid during five of these years, commencing, therefore, two years after the formation of the company. For the two years succeeding 1853, there were heavy losses, owing to the increased cost of working, it being found necessary to work the lower levels. This, of course, necessitated increased machinery, and increased capital to pay for it. The last half-year showed a slight profit, and it is to be hoped that, from this point, there will be continued advancement, the experience derived from the past guiding the proceedings of the future.

To give you a fair report, I must divide the period of the existence of this company into two parts, and consider it up to 1853, and from thence to the present time. Up to April, 1853, the capital stood at 6600*l.*; the profits up to that date, from sales of ore, &c., 7335*s.* = 13,944*s.* The disbursements up to the same period were—on account of preliminary expenses, 432*s.*; account, mines and royalties, 1777*s.*; machinery, 1013*s.*; dividends, 3924*s.*; salaries, expenses of office, travelling, furniture, directors' remuneration, rent, and sundry other expenses, 5223*s.* = 12,369*s.* thus leaving about 1575*s.* in hand. I will remark on these figures, and conclude my notice of this company next week.

SUCCESSFUL FOREIGN MINING.

In our last Journal, we inserted some remarks anticipatory of the half-yearly meeting of the Consolidated Copper Mines of Cobre Association, held on Tuesday, showing the successful operations at the mines, and the still promising features of future proceedings. From the directors' report, we find that the produce of the mines for the year 1853, to Nov. 30, amounted to 16,677 tons, being 2033 tons more than the quantity raised for the same period of 1854. The quality of the ores was the same as in the previous year, being 16*s.* produce. The prices obtained from the sales at Swansea had been fair and steady, and enabled the directors to declare a dividend of 5*s.* per share, as we stated in our last. The report stated that in the great mine, where such rich ore was raised at the commencement of operations, the lode in the 60 fm. level had become disordered, and split into branches, in consequence of which the workings had been discontinued, and the ores subsequently shipped had been raised from other portions of the property. For years the attention of the agents had been directed to the recovery of this lode, and at the 120 fm. level they have recently cut one, which they hope will turn out to be the lode in question, and if so, great expectations are entertained from it. A considerable drawback, however, was stated to exist from the difficulty experienced in obtaining a sufficient supply of labour to work the mines effectually, the agents stating that they could effectually employ a very largely increased number of hands. They had directed that a larger number of Chinese should be employed, and that miners should be sought for from Europe. Russell Ellice, Esq., and Walter Shairp, Esq., the retiring directors by rotation, were re-elected, as was also Alexander Bruce, Esq., as auditor. The candidates for the directorship, vacant by the death of G. Probyn, Esq., were Charles William Grenfell, Esq., James Denis de Vitre, Esq., and John Conybeare, Esq. On this subject we inserted, in last week's Journal, a communication from the latter-named gentleman, with some remarks thereon, with respect to a smaller being placed in the anomalous position of a director of a company of whom he purchases ores. The proprietors have, however, thought it desirable to elect Mr. Grenfell; and, while we do not for a moment insinuate that that gentleman will take any unfair advantage of his position, we cannot but feel that there is an inconsistency in such an appointment.—It is likewise with much pleasure we record the proceedings of another successful foreign mining adventure:—

The South Australian (Burra Burra) Mining Association appears, from the report of the half-yearly meeting, held in Adelaide, on Oct. 17, about assuming the same importance in the commercial world as it did on the first discovery of the Burra Burra Mine, 1845, and for years afterwards, as its then extraordinary produce increased, until the gold discoveries diverted the field of mining labour from that legitimate source to the tempting one of seeking for gold. In their report, the directors state that early in the month of May operations were commenced in the deepest levels of the mine, and have since been continued with a much greater measure of success than they could have anticipated. The ore produced during the half-year was 4409 tons, containing an average of 24 per cent. of copper, and the yield of two tributes, which expired on Sept. 28, exceeded 2660 tons, or 27 per cent., the highest average yet obtained from the mine. The accounts were of the most satisfactory character; they extended from March 31, 1854 (to which period all former transactions had been closed), to Sept. 29, 1855; they showed capital stock, 12,220*l.*; profits, 123,200*l.*; profit and loss account, 1014*s.* 5*s.* 6*d.*; sales of copper, 11,509*s.* 12*s.* 10*d.*; sales of ore, 812*s.* 1*s.* 9*d.*; fees on transfers, 32*s.* 16*s.*; rents, 320*s.* 10*s.* 5*d.*; discount and interest, 63*s.* 5*s.* 6*d.*; sundry creditors against 376 tons of unclaimed dividends, 5335*s.* = 178,102*s.* 10*d.*—By moiety of the Burra Burra survey, and land adjoining, 12,010*s.* 9*s.* 2*d.*; landed property, 1939*s.* 5*s.* 1*d.*; Pompure estate, 1317*s.* 5*s.* 4*d.*; Karcuto Mine, buildings, work, and plant, 17,408*s.* 9*s.* 7*d.*; erections at Burra Burra, 20,050*s.* 1*s.* 4*d.*; wages, tools, machinery, timber, stores, &c., 102,304*s.* 15*s.* 11*d.*; cartage,

2082*s.* 17*s.* 9*d.*; officers' salaries, and establishment, 6671*s.* 0*s.* 6*d.*; port agency and freight, 257*s.* 13*s.* 11*d.*; office furniture, 292*s.* 8*s.* 4*d.*; debts, 3285*s.* 10*s.* 5*d.*; leaving in the Bank of Australasia the unclaimed dividend fund, as above, *per contra*, 5335*s.*; a general balance of 4586*s.* 1*s.* 11*d.*; and cash in hand, 381*s.* 10*s.* 10*d.* The balance of assets over liabilities was 61,510*s.* 12*s.* 5*d.* The ore on hand at the mines, on March 31, was 3251 tons 9*cwt.* 3*qr.*; raised since, to Sept. 29, 4408 tons 17*cwt.* 3*qr.* = 7660 tons 6*cwt.* 2*qr.*—By quantity delivered to the English and Australian Copper Company, 3094 tons 3*cwt.* 3*qr.*; leaving on hand, on Sept. 29, 4566 tons 2*cwt.* 3*qr.* The copper on hand, on March 31, was 88 tons 15*cwt.* 3*qr.*; received from the English and Australian Copper Company, 287 tons 1*cwt.* 0*qr.* 25*lb.* = 375 tons 16*cwt.* 3*qr.* 25*lb.*—By copper exported for sale, 150 tons; sold in Adelaide, 64*s.* tons; leaving on hand, 161 tons 6*cwt.* 3*qr.* 25*lb.* Should no untoward circumstances occur, the directors intended to resume the payment of the dividends out of the above balance of 61,510*s.* 12*s.* 5*d.* on Dec. 1 last. The report of Capt. Roach was highly favourable. The lode in the slopes in back of the 50 fm. level, at Peacock's main shaft, was 15 ft. wide, yielding malachite and red oxide of copper. In sinking Roach's shaft they had cut through a fine bunch of blue and green carbonate. In the 35 and 30 fm. levels, the pitches in them, the workings at Graham's main and air shafts, and the pitches generally in the mine, were producing good results. At Karkulte Mine, they had placed six men to drive north on the lode in the water level, where it was 2 ft. wide, composed of quartz, mica, iron, and copper ore. From the indications, Capt. Roach regretted that from the state of the water they could not sink deeper with the present means of drainage. The number of hands employed by the company on the 29th Sept. was 605. Messrs. W. Allen and John Beck were elected directors, in the place of Messrs. W. Paxton and F. J. Beck, resigned.

LAKE SUPERIOR COPPER MINES.

The following interesting account of the Lake Superior Mines has been condensed from "Sketches of the City of Detroit, in the State of Michigan," by Mr. R. E. Roberts:

The existence of rich veins of copper upon the shores of Lake Superior appear to have been known to the earliest explorers in that region: in 1668, Father Claude Alouze, a Catholic missionary, visited the Lake, and frequently found pieces of native copper, weighing from 10 to 20 lb. In 1699, Baron La Fontaine visited the Lake, and describes the copper mines in his *Voyages to Canada*. P. de Charlevoix visited the Lake in 1721, and Capt. Carver in 1765, both giving accounts of the singular character of the copper deposits. As early as a period as 1771, a company, composed of His Royal Highness the Duke of Gloucester, Mr. Secretary Townsend, Sir Samuel Tuckett, Bart., Mr. Baxter, Consul of the Emperor of Russia, Mr. Cruikshank, in England, Mr. Bostwick, Sir Wm. Johnson, Bart., and others, to work these mines, but this region at that time was inhabited entirely by Indians; the project was found impracticable, and abandoned. Under the presidency of John Adams, in 1800, the first attempt was made by the American Government to get possession of this mineral region. In 1819 an expedition was fitted out by the general Governor, under the command of General Cass, then Governor of the territory of Michigan, for the purpose of settling existing difficulties among the various Indian tribes living on the borders of Lake Superior. Hon. H. R. Schoolcraft accompanied the expedition, and collected a mass of valuable information relating to the mineral wealth of the Lake country; but little further attention seems to have been devoted to these mines until the territory was finally ceded by the Indians to the United States Government, in the year 1842. All the early explorers seemed to agree that copper existed in great abundance; but that so great was the distance of this region from a market, and so wild and unsettled the country, that there would be little prospect of any mines being worked with profit. Their observations, however, could not fail to draw attention to this region, and immediately after the Indian treaty, Dr. Douglass Houghton, under Government instructions, commenced a geological survey of the territory, which resulted in the discovery of veins of native copper, of most extraordinary character—extraordinary not alone for the copper itself, but also for the evidences of ancient mining on all the prominent veins of the mineral range. Professors Foster and Whitney, in their report to the United States Government, say that it is impossible, in a brief report, to describe the ancient mining on Lake Superior, which is of so much interest at the present day to the antiquarian, and some to the explorer as a clue to the richness of the veins. It may be stated, however, that these evidences of ancient mining are found on most of the prominent veins throughout the entire mineral range of Lake Superior, and must have been done at a very remote period. From the size and age of the trees growing over many of these pits, it is evident that several hundred years, at least, must have elapsed since the excavations were made. By whom they were made it is impossible to say.

The present Indians have no traditions as to copper mining in the region, and have not now any conception of how or by whom the work could have been done. Dr. Houghton continued his surveys and explorations, until he lost his life in a gale on Lake Superior, in 1845. The "Douglas Houghton," one of the prominent mines, was named in honour of his memory, whose labours have contributed so largely in opening up a mineral region which bids fair to equal, if not rival in remunerative productiveness, the copper mines of England. The first settlement, attracted solely by the copper discoveries, was commenced, under many disadvantages, in 1846, and the Lake shore now numbers about 20,000 inhabitants. Several thriving villages have sprung up, railroads are being constructed, and a locomotive of a large size is actually on its shores, and the completion of the Sault Ste. Marie Canal, in June last, gives a complete chain of water navigation from the mines on Lake Superior to the city of New York; and splendid steamers, of the largest size, now run regularly between Buffalo (in the State of New York) and Ontonagon, near the head waters of Lake Superior, about 900 miles.

The first shipment of copper, of any account, was made in 1848, amounting to about 200 tons; in 1850, about 400 tons; about the close of the latter year mining may be said to have fairly commenced; in 1853, there were about 2335 tons of copper, valued at \$1,014,000; exported; in 1854, 3500 tons, valued at \$1,500,000; and in the present year it is estimated that the amount to be shipped will reach 3000 tons, valued at more than two million of dollars, at the mines. The aggregate shipments from the following mines, in the Ontonagon alone, the present season, up to August 13, amount to 27,54,860 lbs. of copper, averaging 70 per cent. pure copper—viz., the Minnesota, National, Rockland, Forest, Norwich, Ridge, Nebraska, Ohio Trap Rock, Adventure, Douglas Houghton, Bohemian, Toito, Windsor, and Evergreen Bluff Mines. The Keweenaw Point and Portage Mines are equally productive. All these mines produce pure native copper, in particles and masses varying from 1 lb. up to two or three hundred tons. All the copper of Lake Superior contains more or less native silver; it is sometimes found in pieces weighing several pounds. The width of the productive veins is usually from 1 to 3 ft., and almost without exception these mines are worked on metalliferous deposits, which have all the characteristics of true veins.

IRISH MINING.—It is gratifying to observe a few successful results of mining in the sister island. The mineral wealth of this favoured isle will, it is believed, amply reward the adventurer, if he conducts his operations on safe data, proper principles, and honesty of purpose. It will be seen in a report received from a small and hitherto unnoticed mine, called Ballyvallyn, in county Clare, that the results of working for a short period has produced 65 tons of copper ore, which realised at Swansea, on the 29th Jan., 75*s.* 8*s.* 6*d.* this being the second parcel; and it may be observed that 50 tons more are ready for market. This mine was originally worked for lead about two years since, but discoveries of copper were made about nine months ago. The shares, 40*s.* in number (3*s.* paid), are all disposed of, and held by not more than 35 individuals. The proceedings have hitherto been conducted quietly, without extravagance or misrepresentation, and its management may be taken as a model for other adventures, on a small or large scale.

The GREAT COWARCHE MINING COMPANY have convened a meeting for Wednesday next, to receive replies, and determine the question of proceeding with the prosecution of the

FOREIGN MINES.

The Mexican and South American Company have received advices from their establishments in Chile, by the *Atento*.—The advices from Herradura Smelting Works are to the 15th Dec.; Mr. Barnes, the chief superintendent, had arrived on the 4th, and carried out the board's orders, by dismissing Messrs. Robert Edward Alison and Frederick Field. The *Low Gwyb* arrived on the 4th with bricks, furnace iron, clay, &c., and was to be laden with copper for revenue. The *Isabella*, with 30 tons of coal, and a supply of acids, arrived on the 12th, and would load with regulus. A large stock of ores and regulus was on hand. The annual stock-taking was about to commence. The advices from Caldera Smelting Works are to Dec. 17, on which day Mr. Rodbard, the superintendent, had arrived, and would direct the yearly stock-taking. The *Aracundo* was discharging Welsh coal; the *Eulogia*, Chilean coal; the *Cerro del Nito*, English coal; the *Alma* and *Amistad*, sulphur ores. A large stock of regulus and silver regulus was waiting for shipment. The company's steamer, *Anne*, was on the 15th at Herradura, the machinery being overhauled, which was found in good condition. Since the last advices, the *Nina* and *Fanny* have arrived at Swansea with copper, copper regulus, and silver copper regulus, on account of the company. Mr. Barnes, the new manager, is a man of great ability, a well-trained smelter, and of sound experience in commercial operations; under his direction, measures are in progress for extending the working, and introducing increased economy with the new. Mr. Lawrence Taylor, lately a merchant at Hamburg, becomes assistant superintendent. Mr. Alfred Sinclair, C.E., who is an experienced smelter, will, on January 1, be promoted from superintendent of smelting at Tongoy Works to be superintendent of smelting at Herradura Works. Mr. W. B. Neale has returned from Huasco, and is appointed book-keeper at Caldera Works, and Mr. Borman will be removed from Caldera Works to Herradura Works, to become assistant to the book-keeper there. Mr. G. F. A. Tait, surgeon and supernumerary assistant, left by the last mail for Hendon. A new clerk was to be appointed by Mr. Barnes at the Tongoy Works, on Jan. 1. The officers and men are all reported to be in good health.

The Mariquita and New Granada Mining Company, since their meeting last week, have received advices, of which the following is an abstract:—SANTA ANA MINES: Oct. cost \$5775, returns \$13,484; Nov. cost \$7118, returns \$15,225.—MARMATO MINES: Cost \$14,205, returns \$15,871.—PURIMA MINES: Oct. cost \$4971, returns \$3815; Nov. cost \$1136, returns \$1040. The cost at Purima includes the expense of putting up new stamping mills. Gold to the amount of \$15,130 has been received by this packet.

The Copiapo Mining Company have advices from their agent to Dec. 15, confirming the important improvement in the Chico Copper Mine, where the slopes in the bottom of the 30 fm. level are producing a large quantity of ore of from 34 to 36 per cent., and the 40 fathoms level is fast approaching this ore ground. The agent states he had been to the mine, and had found it richer than ever. The December produce would be quite equal to that of November, which consisted of about 100 tons of best ore, 35 per cent.; 16 tons ditto, 30 per cent.; 54 tons of Desplantes, 15 per cent.; 64 tons ditto, 13 per cent. The silver mines presented no change.

The Clarendon Consolidated Mining Company of Jamaica received, on Wednesday, very satisfactory reports from the mines up to Jan. 7:—At Provost's, the lode in the level driving north-east is about 4 ft. 6 in. wide, carrying two regular walls, composed of flocks, porphyry, oxide of iron, and muriatic, with occasional sprays of yellow copper ore. At Stamford Hill, the lode in the 22, north-east of shaft, is about 4 ft. wide, with good regular walls, composed of porphyry, and a quantity of iron, stained with green carbonate of copper, easy for driving. In the 35, north-east of shaft, it afforded Capt. Harper much satisfaction to say that the lode continued to present the same favourable appearance named in his last report. The portion of the lode through which they were driving was about 7 ft. wide, very kindly; the hanging-wall was very smooth and regular, underlying north-west about 12 in. per fm. Capt. Harper states he never remembered seeing a better defined lode. The ground in the 35 cross-cut is much softer for driving through it than it has been, carrying a quantity of carbonate, and spots of ore, thus showing that they are getting near the lode. Everything was being done to push forward this important work as fast as possible. They hoped to make the necessary communication with the shaft, should the ground continue as at present; by the end of the month, or, at furthest, the first week in the next. On the whole, Stamford Hill never looked so encouraging as at the present time, and Capt. Harper felt persuaded that as they approached the base of the mountain, valuable lode would be the result. During the past six months, the total amount of work done in sinking, raising, driving, &c., was 148 fms. 0 ft. 5 in. Five cottages had been erected, containing together 15 rooms, for the accommodation of the English miners, besides other out-buildings.

The Royal Santiago Mining Company have received advices from Cobre to Dec. 31 and Jan. 5, by which it appears that no material alteration had taken place since the last report, but that the works were proceeding satisfactorily, with prospects of improvement. During the past month, the following ore had been raised:—3 tons stone, 3 tons rasing, 1 ton dust, 10 tons grey dust, 1 ton 2d grey dust, 2 tons grey stone; total, 60 tons ore, and 3 tons precipitate.

The Waller Gold Mining Company have advices from their superintendent in Virginia, to the 5th inst.:—“I am happy to report the resumption of our operations so far as mining is concerned. The mill is yet closed, the frost continuing with (if possible) increased severity. Both yesterday and to-day snow has fallen heavily, and I am in hopes the weather will soon change, so as to permit stamping. I shall send you by the next mail the monthly returns for December. I have been so much occupied with settling and the new hirings, I have not had time to complete them this week. I have succeeded in getting back my old hands in many instances, and everything bids fair for the new year. I trust soon to show you, by my weekly returns, an increased result to a considerable extent over last year's yield.”

The Fort Bowen Mining Company have advices from their manager, Capt. Tregoning, to Jan. 5:—“The gold extracted amounted to 47 ozs. 9 dwt. 2 grs. The weather being unsettled, it was not deemed advisable to send it by the present mail. The Christmas holidays had interfered with the working, and Capt. Tregoning required English miners: eight excellent hands have been selected, and sent out, and by this time are at the mines. It is fully expected that at the meeting, to be held on Tuesday next, the whole of the additional capital required will be subscribed for, as the shares have considerably advanced in price, in consequence of the favourable report of the operations. The following is extracted from a letter received from Capt. Tregoning:—“The gold return from the week ending Dec. 21 to the week ending Jan. 5, 10 ozs. 0 dwt. 1 gr.; in my possession, 47 ozs. 9 dwt. 2 grs., all of which I hope you will find correct. In the last 15 days the work has progressed but slowly, and I regret to see the gold produce so fallen off; it is occasioned by not having a supply of wood, and not the deficiency of people to work the engine.”

The Quartz Rock Mariposa Gold Mining Company have advices from Mr. Waddell, dated Dec. 19. He acknowledges the receipt of a further credit on Messrs. Baring and Co. for 1000/-, and says:—“It is a matter of great satisfaction that not only has the mine been amply supplied with all descriptions of stores for 50 men for six months, and for all the cattle until next harvest, at prices one-third less than are now current, but also that everything required in the way of stock, wagons, and implements—a large supply of iron, steel, miners', carpenters', and smithing tools, quicksilver, powder, &c., are now on the premises, and in use, rendering us thereby independent of the winter season, and the high prices we should otherwise have had to pay the storekeepers at Coulterville.” Mr. Waddell further states that the road to the vein is completed, the engine-house roofed in, and a comfortable place for the stock erected; that they are getting out quartz which the manager says looks much better than expected, and must certainly pay well; and Mr. Waddell adds: “I know of nothing now to cause delay, and have intimated that I calculate on the entire machinery, including the new stamps, being at work the day after Christmas; and with a considerable part of our contract for 600 cords of wood executed, and our advanced position generally, I am able to form an estimate of the expenses and results, and I think, from all the working of the quartz from the Mary Harrison vein, my lowest estimate of its yield, \$25 per ton, will be at least borne out. Assuming the cost of working and amalgamating to be \$15 per ton, and royalty \$4, making \$19, at \$5 per ton it would leave a profit of 30 per cent., and all it yields above that will be additional gain; if it comes up to Mr. Phillips' estimate (\$38 per ton), after his trial of it at Mount Ophir works, the returns will very handsome indeed, when working on an extensive scale; and I do not despair of reducing the expense of working the quartz to about \$12 per ton, when we can get good men.”

The Rocky Bar Gold Mining Company have advices from Mr. Seyton, dated Grass Valley, Dec. 17. He says:—“I have sunk the shaft about 16 ft., and opened out galleries in such a manner as will, when finished, give me work for the winter. We are beginning to get the rock out now. Portions of it do not look so good as that taken from our upper galleries; it is denser, and of a bluish tint, with an immense quantity of iron pyrites. The water is less now, and I can keep it under with ease. The machinery is in good order, and I have strong hopes of being able to weather the winter. I would have sunk the shaft 10 or 12 ft. deeper now, but the rock at the bottom was hard, and I did not wish to do more dead work than was necessary to secure work for the winter. The sinking of the shaft 16 ft. above alluded to took 17 days.”

The Australian Mining Company have advices from their agent, Mr. Forster, dated Tungkillo Mine, Oct. 10:—During the last month we have sunk Masserman's shaft 10 ft. 3 in., the total depth being 37 ft. 7 in. below the 60 fm. level. The shaft is now set for 45 ft. per fm., for 4½ fms. or down to the 70 fm. level, including a fork of about 5 ft. The ground in the shaft is a little harder, hence the increased price; but part of this is due to the extra depth from which the stuff is to be hauled. There is no lode to be seen that can be called a lode, but the flockan, which is the leader to it, is still holding down. In the course of eight weeks or so from the present time I hope to commence to drive in the 70 fm. level, and probably to the north as well as the south. At that depth I think we can calculate pretty accurately whether or not there would be any probability of success by further deepening Tungkillo Mine, and it will now be many months before we can so write you.—CHARLTON MINE: In my opinion it is most important to the future interests of the company that the Charlton Mine should be at once proceeded with.

The English and Australian Copper Company have advices from their manager at Adelaide to Oct. 19. Three furnaces were lighted on the 5th, and the refinery on the 12th. They had by last report about 70 tons of pig copper to go on with, so they will be able to more than pay the Burra Burra Company the copper due to them on the 30th inst. The stock of coals on the works on the 13th inst. was 371 tons, and with the present abundance of cartage, it must continue to accumulate, notwithstanding the consumption. Six coal ships have arrived with about 4000 tons of coal. The stock of ore on hand was 6530 tons. The Donald M'Kay, with 373 tons of ore, arrived at Liverpool on the 31st ult.; and the Champion of the Seas, bringing these advices, with 176 tons of ore. The carting season has commenced with great spirit, and will, no doubt, continue to go on till harvest commences, which, from present appearances, will be at an early date, and promises to be a very abundant one. From the 1st to the 6th inst. 225 tons of ore were sent away from the works, and from the 7th and 15th 285 tons.

The North British Australasian Company have received advices per *Grange City* from Mr. Mackay, dated Sydney, Nov. 1, and from Mr. Beeger, dated Kawan, Oct. 8. The intelligence from Kawan, with regard to the progress at the mine, is unfavourable, and the workings have proved so unproductive at the deepest level, and the expenditure continues to be so great, that Mr. Mackay had written to Mr. Beeger, recommending total suspension of further trials. The accounts of the properties of New South Wales and general business continue to be very satisfactory.

The South Australian Copper Mining Company have advices from their manager, dated Strathalbyn, Oct. 19:—On the mine we have been occupied in preparing to go to work immediately that the engine is put together. I have succeeded in getting the whole of the cargo of the *South Sea* carted to the mine, with the exception of the boiler, which is at present at the Goolewa, whither I had sent it, as the roads between this place and Adelaide are at present too bad to allow of its being brought up that way. A party start to fetch it thence to this place to-morrow, and when it arrives (which I hope will be in the course of next week) a few days will

enable us to put it together and commence working immediately. The flues of the furnace are completed and ready for the arching, and when the bricks are landed from the *Switzerland*, a few days will also enable us to have the furnace and its apparatus ready for smelting. I hope that in my next I shall have to report to you the success of the smelting.

The Port Phillip and Colonial Gold Mining Company have advices from their resident director at Melbourne to Oct. 25. He forwards bill of lading for 12 tons 15 cwt. of tin ore, and 153 oz. in gold in two bars, shipped in the *Champion of the Seas*, the produce of the company's establishment at the Ovens; also, a box of samples of tin ore. He also transmits Mr. Thompson's report on the quartz bands at Mount Blackwood gold fields and at Mount Egerton, and adds:—“Mr. Thompson will leave this week to examine the quartz veins recently discovered near Geelong, at a place called Steiglets. I have suggested to him the expediency of securing, if possible, a claim on some quartz vein he may consider eligible, and employ upon it a sufficient number of men to retain possession of it, leaving the question of machinery for crushing and amalgamating for the present, until the value of the claim has been proved, and the board have had time to send out further instructions with reference to future operations; at the same time, anything decidedly advantageous in this branch of mining I shall not hesitate to enter into without delay.” With respect to the Tin Ore he remarks, “The whole of this has been shipped by this vessel, and I hope it will realise a price in accordance with the assay. That raised by Mr. Thompson I felt compelled to extract the gold from here, owing to the extreme fineness of the gold, which was likely to be partially lost in the bags, and the variances of the quality rendering it impossible to give a fair average sample; some bags averaged as low as 20 ounces per ton, and two small lots gave at the rate of 350 ounces per ton.

The Worthing Mining Company have despatches from their acting manager at Adelaide to October 19. The information received is of an encouraging character, and more especially so as the colonial committee have entered into arrangements to work a mineral property of 630 acres in the Strathalbyn district, upon most advantageous terms. This property is reported upon as being situated in an excellent locality, and the lodes already laid open warrant the most sanguine expectations of an early return to this country of copper ore. The analyses of ores already obtained give a produce of from 30 to 40 per cent., and from the situation of the grant there can be no doubt but that in a few years considerable addition to the value of the freehold land will be made independent of the great chances of mineral wealth likely to be secured by an active development. The company have a right of pre-emption to the freehold land, and according to the produce of ores already certified, if the purchase is completed the company will most likely realise a considerable advantage.

WEEKLY LIST OF NEW PATENTS.

APPLICATIONS FOR PATENTS, AND PROTECTION ALLOWED.

J. Calvert: Extracting metals from their ores.—J. E. A. Gwynne: Instruments for indicating pressure or vacuum.—W. H. Zahn: Windmills or wind-engines.—A. Tolhausen: Double-acting pumps.—F. C. Hills: Economising fuel.—T. D. Duppas: Generating and heating steam.—P. M. Salomon: Manufacture of gas from peat, and in the coke resulting therefrom, and in the apparatus connected with that manufacture.—W. Bowett: Mechanical arrangement for lifting weights, and other useful purposes.—C. Cowper: Treatment of coal, and in the purification, desiccation, and agglomeration of coal, and in machinery and apparatus for such purposes.—J. Taylor: Apparatus for raising and lowering weights.—W. B. Johnson: Steam-boilers and engines.—C. Mathew and C. Millward: Steam and vacuum guages.—C. Hart: Portable steam-engines, and in apparatus connected therewith for tilling, and cultivating land.—J. Wright: Furnaces and fire-bars.—J. Betley: Rolling of iron for the making of ships' knees.—R. S. North and R. Peacock: Metallic packings for pistons.—H. Hindle: Apparatus for regulating the flow of steam and gas.—R. A. Broome: Machinery for boring and excavating.—A. V. Newton: Manufacturing rods, shafts, and tubes of iron and steel.—W. Watson: Arrangement of furnaces.—J. Darlington: Manufacture or production of zinc or spelter.—J. Fernihough: Steam-boilers and apparatus for consuming smoke.—W. Pole and F. W. Kitton: Railway wheels.—W. Routledge: Cocks of valves for regulating the flow and pressure of steam, water, or other fluids.—J. Hostage, T. L. B. Hostage, and J. Tatlock: Railway chairs.

SMOKE PREVENTION, AND STEAM-BOILERS.—A few days since, Mr. Lee Stevens delivered a lecture to the members of the Polytechnic Institution, Southampton, on the subject of Smoke Prevention, and illustrative, also, of his patent safety steam-boilers. Divesting himselfs of all dry technicalities, the lecturer conveyed to his audience, in popular terms, a very distinct notion of the system he has so long and successfully adopted for the prevention of smoke in land furnaces of almost every conceivable form, from a baker's oven to a steam-boiler or a brewing copper of the largest dimensions. In the system thus practically carried out by Mr. Stevens the main feature is the introduction of a current of heated air at the extreme inner end of the fire-place, which, whilst extending from side to side of the furnace in an ascending stream, intercepts and mingles with the carbonaceous gases from the coal fire, or the assimilated gases of other sorts of fuel; thus supplying them with the requisite quantity of oxygen in a proper state, converts them, by more perfect combustion, to the required purposes, instead of allowing them to escape in the murky form of useless and destructive smoke; and thereby causing an economy of fuel, practically found to average 20 per cent. That most extensive success, and comparatively few failures, had followed the use of his invention, the lecturer proved to the apparent satisfaction of his audience, by reference to his testimonials, showing the safety as well as the efficiency of his system, from all parts of the kingdom, and by the distribution in the room of a long list of first-class firms in London and elsewhere, to whom he is permitted to refer any one who desires to be personally assured that Mr. Lee Stevens' practically and economically effects what he undertakes to do. With reference to his more recent invention, he stated that, although adaptable with equal advantage to land as well as to marine purposes, the latter had been his primary object, regarding which he had sought some means by which the carbonaceous gases, escaping from the furnace, might be ignited in some other place of interest; and the very simple plan he has invented ensures their complete combustion within the limits of the boiler itself, preventing alike the formation of smoke and all danger from over-heated furnaces, and thus, as a natural and inevitable consequence, the invention causes economy of fuel in proportion with the more or less bituminous quality of the coal—ranging practically, from 15 to 30 per cent. These effective, safe, and economical results are attained by the admission of air to a second fire-box, or combustion chamber, in front of and forming part of the boiler, wherein communication is provided between the flues and tubes that convey the flames and unignited gases from the furnace, through the boiler; and which chamber constitutes, in fact, the most desirable medium for supplying such unconsumed gases with the requisite quantity of oxygen to convert them entirely into flame. So constructed, the ordinary waste of fuel by the passing off of smoke is turned into economy, by the constituents of the smoke being converted into flame; and the additional heat so obtained becomes so much more evaporative power conferred upon the boiler; whilst the risk of fire, from the occasional ignition of the coal gas after it has passed uselessly through the tubes, and becomes inflamed upon contact with the atmosphere, is most effectively avoided. The lecturer stated that it was the opinion of Capt. John Vine Hall, who commanded the *Oreus* when she was unfortunately burnt, that such a catastrophe would not have occurred to her had her boilers been fitted with the lecturer's combustion chamber; and among other practical and scientific names mentioned as recommending the invention were those of Mr. Alexander Gordon, Mr. Robert Galloway (Inspector of Steam-boilers on the Thames), Capt. John Ford (late Superintendent to the General Screw Steam-Shipping Company), Capt. F. D. Stewart, R.N., &c. &c. The lecture was illustrated with several diagrams, and at the close the thanks of the audience were, through the President, voted to Mr. Stevens for his interesting and instructive address.

IMPROVEMENT IN RAILWAY SPIKES.—Mr. George Hopper, of Houghton-le-Spring, and Britannia Iron-Works, near Fence Houses, has patented an improvement in railway spikes for fastening the chair to the sleeper. The spikes are twisted spirally, so that they revolve when driven into the sleeper, and hold the chair to the seat with all the firmness of a screw. The round part under the head is tapered conically, so as to fit with accuracy the hole in the chair, by which means any side vibration of the rail is effectively prevented. Mr. Hopper has already made nearly 1000 tons of spikes, and has recently taken out another patent for an improved form of “swaging rolls,” to facilitate their manufacture. While the cost of ordinary wooden irons is 4/- per 1000, the cost of the improved spike varies according to the price of iron, from 7d. to 11d. per 1000; but as they may be guaranteed for 20 or 30 years, they may be considered much cheaper in the end.

THE DIVINING ROD.—The Rev. A. Suckling, L.L.B., recently delivered at St. Heliers, Jersey, a lecture on the history, antiquity, and correct principles of the “dowsing” rod, for the discovery of minerals, metals, and springs of water below the surface of the earth. We have, on various occasions, narrated the doings of our Cornish ancestors, and many West of England men in more modern times, with the “divining rod”; but the reverend lecturer has on this occasion gone deeper into the subject than any of his predecessors who have supported the practice. Mr. Suckling stated that he was convinced there existed a certain, though inexplicable, affinity between the effects of operations with the divining rod and what, in our present modern designation, is termed “mesmerism”; that he refers them to one and the same source. It was then attempted to show that mesmerism was known to the ancient Egyptians, and that many anecdotes and passages of Scripture show that it was well understood among the entire population of Asia. To this principle is ascribed the application of Naaman, captain of the host of Syria, to obtain cure for his leprosy, and the interview of Saul with the Witch of Endor. In the course of the lecture it was stated that many of the wells in this island had been discovered by himself and others, endowed with the peculiar power which was said to appertain only to certain persons. With all the so-called proofs of the existence of this mysterious power, we cannot help thinking most of the arguments very far fetched, nor do we think that the lecture will be found to have done much to convince the reasoning men of the soundness of the system.

“MURCHISON ON BRITISH MINES AS AN INVESTMENT.”—The *Plymouth Journal*, in reviewing the fourth edition of Mr. Murchison's volume, says:—“The fact that the first edition of this work appeared so recently at the close of 1854, and that we have now before us the fourth edition, proves that Mr. Murchison has in its publication met a great public want. There are a large number of persons who are interested in mining, and if men saw their way more frequently than they do to an honest pursuit of it, more capital would flow into it than heretofore. In this work Mr. Murchison enables the capitalist to invest on sound principles, and it is his own fault, if, after the instruction and admirable advice which this book contains, he runs himself headlong into difficulties, or become a heavy loser by his speculations. It is, in truth, an excellent guide, and, as far as the nature of a property so shifting as the value of mines will allow, a reliable exponent of the present value of all the most notable of the western ‘adventures.’ There is an interesting chapter in which the objections to British mines are considered, and the nature of such investments explained; and this edition includes a review of the progress of British mines in 1855, the dividends paid during the year, and the present position and prospects of the principal mines in this country. There are 132 dividend and progressive mines noticed, and a valuable appendix exhibits the present position and prospects of British mining enterprises. The author has brought together a mass of facts which prove the immense riches which have been derived from successful mining, and we should, if we had the space, like to draw largely upon its interesting pages. We strongly recommend the work to all who are peculiarly interested in the subject on which it treats.”

MINE ACCIDENTS.—At Spearne Consols, last week, a young man, named Warmington, lost his sight and one arm whilst preparing a hole for blasting. At East Pool Mine, on Wednesday, Thomas Bennets fell about 60 fms., and was killed. At United Mines, on Thursday, Ambrose Bray was killed in descending the main engine, through missing his footing in the 45 fm. level.

The European Gas Company have convened the half-yearly meeting for the 13th inst. A dividend of 10s. per share is now in course of payment.

The London General Omnibus Company's traffic returns, for the week ending Jan. 21, were 35031. 7s. 1d.

RAILWAY REFORM.—The object of the RAILWAY PROPRIETORS' ASSOCIATION is to bring the united and organised action of the whole body of shareholders to bear upon the various mistakes in policy, management, or legislative enactment, which have hitherto resisted all isolated efforts.

Subscriptions will be received at the London and Westminster Bank, Lombardy-street; 1, St. James's-square; 314, High Holborn; 3, Wellington-street, Borough; 87, Whitechapel High-street; 4, Stratford-place; and 217, Strand; and at the office of the association, 430, West Strand, where every information may be obtained.

WILLIAM MALINS, Chairman.

430, West Strand, entrance in King William-street.

EAST LANCASHIRE RAILWAY.—WANTED, FIVE NEW LOCOMOTIVE ENGINES AND TENDERS. Plans and specifications to be seen on application at the Company's Locomotive Shops, Bury.—Sealed tenders (endorsed “Locomotive Engines”) to be addressed to the undersigned, on or before Tuesday, the 19th day of February next.

By order,

GEORGE FENTON, Sec.

A NEW TERP AND ROTTERDAM RAILWAY COMPANY.—The Council of Administration have the honour to inform the shareholders that a DIVIDEND OF FIVE FRANCS (FOUR SHILLINGS) per share, less income tax, will be PAYABLE on the share capital of this company, out of profits arising from the working of the line from 3d May to 31st December, on and after the 15th day of February next. The shares must be deposited five clear days previous to the delivery of the dividend-warrants, at the offices of the company, 16, Cannon-street, 18, Brunswick-street, Liverpool. By order,

GEORGE F. SMITH, Sec.

TO WESTMINSTER BONDHOLDERS.—NOTICE OF MEETING.

Having been requested by several bondholders to convene a public meeting, for the purpose of considering their present position, and adopting such measures for their relief as may be deemed expedient, I beg to announce that such a MEETING will TAKE PLACE on Thursday, the 7th February next, at the London Tavern, at One o'clock precisely. I shall on that occasion submit for the

CORNWALL.—IMPORTANT PUBLIC NOTICE.—
W. RADMORE begs to acquaint parties frequenting the county of Cornwall that the ROYAL MAILS and COACHES, plying through Cornwall, NOW LEAVE the GLOBE HOTEL, BEDFORD STREET, where places only can be secured, and all information required obtained.

RADMORE, DUNN, OLIVER, WARD, PEARCE, &c. Proprietors.

Royal Mail and General Coach Office, Globe Hotel, Plymouth.

OVERLAND ROUTE.—STEAM TO INDIA AND CHINA, &c., via EGYPT.—THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY BOOK PASSENGERS AND RECEIVE GOODS AND PARCELS for the MEDITERRANEAN, EGYPT, ALEXANDRIA, BOMBAY, CEYLON, MADRAS, and CALCUTTA, by their mail packet leaving Southampton on the 4th and 20th of every month; and for CHINA and the STRAITS, by those of the 4th of the month.

For further particulars, apply at the company's office, No. 123, Leadenhall-street London; and Oriental-place, Southampton.

FOURTH EDITION.

This day is published, in crown 8vo. boards, pp. 400, price 3s. 6d., by post 4s., **BRITISH MINES CONSIDERED AS A MEANS OF INVESTMENT.** By J. H. MURCHISON, F.G.S., F.S.S., &c.

FOURTH EDITION, with an APPENDIX, giving a REVIEW of the PROGRESS of BRITISH MINES, and the dividends paid, during the year 1855, with their PRESENT POSITION and PROSPECTS, &c. This edition contains full particulars of the principal Dividend and Progressive Mines in this country.

Copies may be obtained at Mr. MURCHISON's office, 117, Bishopsgate-street Within; or at the *Mining Journal* office, 26, Fleet-street, London.

OPINIONS OF THE PRESS ON THE PREVIOUS EDITIONS.

A very useful publication, and calculated to considerably improve the position of home mine investment.—*Mining Journal*, Dec. 2.

This is a valuable guide to investors in mines.—*Herapath's Journal*, Dec. 2.

Mr. Murchison takes sound views upon the important subject of his book, and has placed, for a small sum, within the reach of all persons contemplating making investments in mining shares that information which should prevent rash speculation and unproductive outlay of capital in mines.—*Morning Herald*, City Article, March 21, 1855.

The whole comprises a great deal of very useful information, of special interest to persons having capital employed, or who may be desirous of investing in mines.—*Morning Chronicle*, City Article, March 23, 1855.

Mr. Murchison has here brought together the details most wanted on the legal mining undertakings at home.—*Globe*, City Article, Dec. 7.

The book will be found extremely valuable as a guide to all who are interested, or about to seek investments in mines; and we have elsewhere availed ourselves of some of the mining curiosities which Mr. Murchison has so skilfully brought together.—*Observer*, Dec. 24, 1854.

Will be exceedingly valuable to any one who desires to adventure in this important branch of our home industry. * * * comprises all that is necessary to guide a person in a judicious outlay of his capital.—*Mining Journal*, Dec. 7.

The matter appears to us to be treated with much ability, and those who have any interest in mining, or who are desirous of investing capital in mines, should avail themselves of the information which the writer has so clearly brought together.—*Mining Herald*.

The author of this little work has evidently devoted considerable attention to the subject on which it treats, and has succeeded in producing a volume replete with information valuable to those interested in mining speculations.—*Bristol Mirror*.

Those who are seeking information on mines and mining operations, with regard to money investment, will find all the instruction and guidance they need in these pages.—*Dover Chronicle*.

This is a very valuable book, which all who are interested in mining ought to possess. It is calculated, we think, to give an impulse to legitimate mining adventures, and to prudent enterprise.—*Cornwall Gazette*.

A very valuable work to those engaged in mining matters; it contains a great amount of important information, not to be had, in an equally clear, condensed, and comprehensive form, in any other publication.—*Morning Advertiser*, City Article.

The work is indispensable to those persons who have any interest in mining.—*Derbyshire Courier*.

This is a clear, succinct, statistical, historical, and geological description of the leading mines in Great Britain, with an especial view to their eligibility as investments. The author has taken particular care to discriminate between those mines which are sound and legitimate, and those which are simply speculative in their character. He has treated the subject with great ability.—*Blackburn Standard*.

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1224 Balleswidden (tin), St. Just	11 1/2	5	12 3 0	0	5 0—Jan. 1854.	
4930 Bedford United (copper), Tavistock	22.6s. 8d.	94	10 10 1/2	8 0 6	0	8 0—Nov. 1855.
2000 Black Craig (lead), Kirkcudbrightshire	3	3	5 0 0	0	2 6—July, 1855.	
2000 Botallack (tin, copper), St. Just*	91 1/2	250	240	335 5 0	5	6 0—Dec. 1855.
100 Brynford Hall (lead), Flint	20	105		3 0 0	3	0 0—Jan. 1856.
1000 Carn Brea (copper, tin), Illogan	15	85		231 10 0	2	0 0—Dec. 1855.
2045 Carnyorth (tin), St. Just	3	5	5 0 0	0	3 0—Dec. 1855.	
10000 Castle Slate Quarry, Dolwyddan	1	1 1/2	9 2 0	0	0 4—Feb. 1855.	
2000 Cefn Cwm Brynwy (lead), Cardiganshire	33	88		3 0 0	0	0 0—Sept. 1855.
256 Comford (copper), Gwennap, Cornwall	78	94		9 0 0	0	0 0—June, 1850.
256 Conduorow (copper, tin), Camborne*	20	130	120	62 0 0	2	0 0—Jan. 1856.
123 Cwmystwyth (lead), Cardiganshire	60	120		55 0 0	5	0 0—Nov. 1855.
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4445 General Mining Co. for Ireland (cop., lead)	3	2		1 0 8	0	3 3—June, 1853.
3000 Goginan (lead), Cardiganshire, Wales	8	6		22 0 0	5	0 0—Sept. 1850.
124 Gornanessa (copper), St. Cleer	13 1/2	27 1/2	30 27	0 7 6	0	7 6—Dec. 1852.
3000 Great Cinnials (copper), St. Austell	1	1 1/2		0 1 0	0	1 0—Sept. 1854.
13750 Great Polgoon (tin), St. Austell	4 1/2	34	2 2 1/2	6 10 0	4	4—Oct. 1852.
6000 Great South Tolgus	2 1/2	6		0 2 6	0	2 6—June, 1855.
28666 Great Wheal Vor (tin, copper), Helston	5	4	4 1/2	0 5 0	0	5 0—June, 1855.
119 Great Work (tin), Germany	100	130		181 10 0	5	0 0—Nov. 1854.
1024 Herdfoot (lead), near Liskeard	8 1/2			3 12 6	0	7 8—April, 1854.
6000 Hington Down Consols (copper), Calstock	3 1/2	7 1/2	9	2 3 0	0	2 0—Jan. 1856.
76 Jamaica (lead), Mold, Flintshire	31. 13s. 6d.			3 7 6	0	2 0—Nov. 1855.
2048 Kennebey (copper), Breage	6s. 7d.			0 4 0	0	4 0—Mar. 1854.
736 Kirkcudbrightshire (lead), Kirkcudbright	9 1/2			2 6 0	0	3 0—Nov. 1855.
20 Laxey Mining Company, Isle of Man	100	1000		1320 0 0	50	0 0—Jan. 1856.
150 Levant (copper, tin), St. Just	3 1/2	120		1048 0 0	2	0 0—Aug. 1855.
400 Liscourne (lead), Cardiganshire, Wales	18 1/2	150	150	223 15 0	5	0 0—June, 1855.
320 Machno State and Slab Company	25	29		2 10 0	5	0 0—Dec. 1854.
60000 Marke Valley (copper), Cardon...	41. 10s. 6d.	4	3 1/2 4	0 5 6	0	3 0—Sept. 1855.
5000 Meudis Hills (lead), Somers...	3 1/2	2		0 17 6	0	7 6—Dec. 1854.
5000 Merlyn (lead), Flint	21. 13s.	1		1 11 0	0	2 6—June, 1855.
20000 Mining Co. of Ireland (copper, lead, coal)	7	13 1/2		11 14 6	0	14 0—Jan. 1856.
5000 Nantlle Vale (slate), Penrhyn	1 1/2			0 1 6	0	1 6—April, 1855.
7300 Nantlle Vale (slate), Llanllynn	1	1 1/2		0 3 9	0	1 3—Nov. 1854.
6400 Nether Hearn, Westmoreland	2s.	1 1/2	1 1/2 1 1/2	0 1 0	0	1 0—Oct. 1855.
4700 Newtonards Mining Company, Co. Down	50	50		44 0 0	1	0 0—Oct. 1854.
200 North Pool (copper, tin), Pool	22 1/2	150	155	324 0 0	2	0 0—Dec. 1854.
140 North Roskar (copper), Camborne	10	80		249 10 0	4	0 0—Sept. 1855.
5000 North Wheal Bassett (copper, tin), Illogan*	11 1/2	42 1/2	43 43 1/2	6 18 6	17 6	0 0—Dec. 1855.
6100 Par Consols (copper), St. Blazey	1 1/2	20	19 1/2 20	23 18 0	0	12 0—Oct. 1855.
500 Peak United (lead), North Derbyshire	7 1/2	11		4 0 0	0	10 0—Oct. 1855.
200 Phoenix (copper, tin), Linkinhorne	30	550		147 0 0	37	0 0—Dec. 1855.
1000 Polberro (tin), St. Agnes (Preference)	15			11 3 10	1	4 0—Oct. 1855.
560 Providence Mines (tin), Uny Lelant	20. 13s. 2d.	50		34 4 6	4	0 0—Nov. 1855.
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12000 Sortridge Consols (cop.), Whitechurch, Devon	6s.	4 1/2		0 2 6	0	2 6—Jan. 1856.
236 South Cardon (copper, St. Cleer)	2 1/2	300	305 x d	386 0 0	8	0 0—Jan. 1856.
123 South Crinnis (copper), St. Austell	19	400		60 0 0	20	0 0—June, 1855.
9700 South Tamar (silver-lead), Beerfriar...	17. 6s. 6d.	6 1/2	6 1/2	3 5 0	0	5 0—Jan. 1856.
256 South Tolgas (copper), Redruth	14 1/2	145 130	69 0 0	4 0	0 0—May, 1855.	
495 South Wheal Frances (cop.), Illogan*	18 1/2. 18s. 9d.	365	360 365	150 0 0	10	0 0—Jan. 1856.
1024 Speare Consols (tin), St. Just, Cornwall	1 1/2	2	2 1/2	8 8 6	0	2 6—Dec. 1854.
124 St. Aubyn and Gyllys (tin, copper), Breage	23. 17s. 4d.			3 0 0	1	0 0—Dec. 1854.
94 St. Ives Consols (tin), St. Ives	80	100		0 17 6	0	7 6—April, 1854.
9600 Tamar Consols (silver-lead), Beerfriar...	4 1/2			888 0 0	8	0 0—Feb. 1855.
1024 Trehane (silver-lead), Menheniot	19	400		4 11 0	2	0 0—Feb. 1855.
2018 Trebene Consols (tin), St. Ives	9	4 1/2		6 18 6	0	10 0—Feb. 1855.
572 Trelyon Consols (tin), St. Ives	2 1/2	25		8 11 3	0	5 0—Dec. 1855.
96 Trevean (copper), Gwennap, Cornwall	32 1/2	150		1 0 0	1	0 0—Oct. 1855.
126 Trethellan (copper), Gwennap, Cornwall	10 1/2	16		403 13 6	0	4 0—Dec. 1855.
4960 Trewenna (sl.-lead), Menheniot, Cornwall	2	3	3 1/2 3	0 1 0	0	4 0—Dec. 1855.
100 Trumpet Consols (tin), near Helston	95	90		55 0 0	5	0 0—Dec. 1854.
400 United Mines (copper), Gwennap*	40	250		55 0 0	5	0 0—Dec. 1854.
20000 Vale of Towy (ld.), Llanllanner, Carmarthen*	1 1/2			0 2 0	0	1 0—Jan. 1856.
1024 Wellington (copper, tin), Perranuthnoe	8 1/2			2 5 0	0	2 6—Jan. 1856.
5000 Welsh Potos (silver-lead), Talboton, Card...	5	5	5 1/2 6	1 0 0	0	5 0—July, 1855.
200000 West Bassett (copper), Illogan	1 1/2	36	36	5 12 6	0	12 6—Jan. 1855.
235 West Cardon (copper), Liskeard	20	113	125 130	274 5 0	5	0 0—Aug. 1855.
235 West Damself (copper), Gwennap	10 1/2	70	70	12 0 0	2	0 0—May, 1855.
400 West Providence (tin), St. East...	5	16		25 5 0	0	15 0—Jan. 1856.
400 West Wheal Seton (copper), Camborne*	3 1/2	360	360 365	22 10 0	5	0 0—Dec. 1855.
1225 Wheal Arthur (copper), Calstock	7 1/2			6 10 0	0	10 0—Oct. 1855.
240 Wheal Ball (tin), St. Just	5 1/2			12 10 0	4	0 0—Dec. 1855.
512 Wheal Bassett (copper), Illogan*	5 1/2	400	400 405	370 0 0	12	0 0—Dec. 1855.
256 Wheal Basset (copper), Redruth	5	582	575 580	746 5 0	20	0 0—Jan. 1856.
1024 Wheal Charlotte, Perranuthnoe	3 1/2			1 0 0	10	0 0—Sept. 1855.
250 Wheal Clifford (copper), Gwennap	3 1/2	520	500 523	9 1 3	2 14 4	14 0—Aug. 1855.
5700 Wheal Exmouth and Adams United	41. 14s.	8		1 0 0	3 0	3 0—Dec. 1855.
5000 Wheal Fortescue, Bodmin	11 1/2			0 2 4	0	1 6—Jan. 1856.
128 Wheal Friendship (copper), Devon	—	110		2375 10 0	8	0 0—May, 1854.
512 Wheal Jane (silver-lead), Kew...	3 1/2			4 10 0	1	0 0—Oct. 1853.
1024 Wheal Kitty (tin), Uny Lelant	£1 7 2	10 1/2	10 11	1 0 0	0	10 0—Dec. 1855.
430 Wheal Lovel (tin), Wendron	33	30		30 0 0	2	0 0—Aug. 1854.
112 Wheal Margaret (tin), Uny Lelant	79	150	145	237 0 0	0	7 0—Nov. 1855.
1024 Wheal Mary Ann (lead), Menheniot	3 1/2	17 1/2		16 2 6	0	15 0—Dec. 1855.
80 Wheal Owles, St. Just, Cornwall	70	280	280 300	176 3 0	2	10 0—Nov. 185